



Study on Animal Welfare Labelling

Final Report

Written by ICF
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Unit G5 - Animal welfare, Antimicrobial resistance

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Abstract

This study on animal welfare labelling for the European Commission (Directorate General for Health and Food Safety, DG SANTE) has gathered evidence to support potential initiatives concerning animal welfare labelling in the European Union. The study has involved collecting and analysing qualitative and quantitative data on consumers' awareness of animal welfare standards and demand for further information. It has also involved gathering data on existing labelling schemes with animal welfare claims found in the EU and assessing their designs and impacts.

Executive Summary

This “Study on animal welfare labelling” was commissioned by the European Commission’s Directorate General in charge of health and food safety - DG SANTE (project reference: SANTE/2021/G5/001) - in April 2021 and has been undertaken by ICF supported by a team of experts.

E.1 Purpose and scope of this study

The purpose of this study was to assist the Commission in gathering evidence that could support potential initiatives concerning animal welfare labelling in the European Union. The study has involved collecting and analysing qualitative and quantitative data on consumers’ awareness of animal welfare standards and demand for further information. It has also involved gathering data on existing labelling schemes with animal welfare claims found in the EU and assessing their designs and impacts. The study was conducted between April 2021 and February 2022.

E.2 Methodology

The study applied a mixed-method approach:

- a systematic mapping, extraction, and analysis of secondary sources, such as peer reviewed articles and grey literature, including EU policy documents, EU legislative documents, and other relevant documents such as audit reports and national action plans;
- a systematic mapping of 51 labelling schemes with animal welfare claims present in the EU Member States, the UK and Switzerland, including 17 labels with an organic dimension. This included the scheme’s country (where relevant) and scope, the type of label, history, governance, controls and impact on animal welfare and the wider market;
- an EU-wide consumers’ survey on understanding, expectations, needs, and preferences towards EU action on animal welfare labelling. The survey explored also willingness to pay for higher animal welfare products. The survey had a quota of 400 responses per Member State (300 for Cyprus, Luxembourg and Malta);
- two targeted surveys: one with industry organisations in EU and Member States, the other with adherents to a selection of existing labelling schemes;
- eight in-depth case studies of labelling schemes with animal welfare claims, across six Member States and three animal species.

Findings presented in this report are based on analysis and triangulation of the data gathered from these various sources.

E.3 Main findings

E.3.1 Problem definition

Consumers’ awareness and information needs

EU consumers had a low level of awareness regarding the conditions in which farmed animals are kept and treated. Despite this, at least half of the EU consumer population would like to receive information on the conditions under which farmed animals are kept and treated. Two thirds EU consumers perceived that the information available to them was not sufficient for them to make informed choices based on animal welfare. EU consumers received information on these matters from traditional media, and not from food labels.

According to the survey, almost half of EU consumers would like to receive more information on slaughter conditions (40%; n=9,306), adequate feeding (40%), outdoor access (35%) and housing conditions (28%). Transport conditions were of less interest in spite of their impact on the welfare of farmed animals. If a label was to be introduced, the majority of consumers would prefer one that applies to all animal-based products.

In terms of differences in awareness by Member State or socio-demographic characteristics, consumers in Northern and Western Member States showed a slightly higher level of awareness of animal farming than those in Eastern and Southern Member States. By contrast, consumers demand for information on animal welfare issues was distributed evenly across the EU. Finally, across EU Member States, younger age groups and females had the highest interest in the introduction of an animal welfare labelling scheme.

Consumers' willingness to pay

Consumer statements showed more willingness to pay than their actual purchasing behaviour. The willingness to pay experiment conducted showed that this is linked, in part, to price. Consumers were willing to pay a higher price for animal welfare compared to a standard product. However, the majority of them would not pay as much or more for a high welfare product than they currently pay for organic products.

Features of a labelling scheme preferred by consumers

As indicated above, consumers awareness on the conditions in which farmed animals are kept and treated was low. Their perspectives on what a good animal welfare scheme is depended on consumers' understanding of farming and on the functioning of labelling schemes. This was also low. However, consumers indicated they would trust labelling schemes owned and managed by NGOs and EU public authorities more than if they were managed by national public authorities and food business operators.

Besides, the survey showed that consumers would likely respond positively to any future labelling initiative that covers more than one animal species (e.g. poultry, beef, pigs), different systems of production (e.g. free-range, organic), and dimensions that extend beyond life on the farm (e.g. on-farm conditions, and humane slaughter). Consumers were also interested in receiving information on other sustainability issues in addition to animal welfare, such as the use of antibiotics, biodiversity, fair pay and carbon footprint. It is noted in the study that the multiple interests of consumers, the feasibility of an integrative label, and the risks of information overload of consumers were important considerations. However, they could not be investigated in more detail in the context of the present study.

Regarding preferences for receiving information on animal welfare on a food product label, consumers across the EU and socio-demographic categories preferred to receive it in a text or a logo format. A minority expressed interest in receiving information electronically (e.g. via a QR code and/or website). In terms of design, consumer preferences for an animal welfare label were unknown, however, the literature on other types of labels (in particular, nutrition), suggested that graded labels are better at driving consumers towards choosing the best options. Graded labels are those that encompass all products, assess whether they perform well or not, and score them on a common scale.

In terms of the necessary system of controls that would underpin an animal welfare labelling scheme, consumer preferences were not known. On this point, literature indicated that a scheme that includes a mix of public controls and private audits would be effective. This means that a system can provide extensive coverage (via third party auditors) and reliability (from the public institutions) by combining audits and controls carried out by third-party auditors (to ensure their independence), together with internal audits and controls from public institutions.

Current problems with animal welfare labelling schemes

The study explored other issues related to the existing animal welfare labelling schemes in the EU, beyond those related to consumers.

The study found that existing animal welfare labelling schemes contribute to distortions of competition between high welfare producers trading in multiple EU states due to variations in scheme criteria and associated costs. Other ways that current animal

welfare labelling schemes contributed to distorting competition between EU operators are:

- when operators adhering to a label in their home country were unable to sell their products as high welfare products in another market because no such segment exists, or the label was not recognisable to consumers or retailers in that country;
- when operators based in countries where a labelling scheme was located felt obligated to join due to pressure from retailers and were concerned about ramifications for their business if they did not join;
- when operators adhering to a label in their home country faced competition from non-scheme members from other Member States, who could sell their products more cheaply as they did not need to fulfil the higher welfare requirements;
- when the standards of different labels presented in the Member State in which they sought to trade differed in severity and associated implementation costs;
- when producers adhering to a scheme had to compete with conventional producers for particular products/cuts when there was no market for those products/cuts to be sold under a label and at a premium (as seen also for organic products).

The existence of multiple animal welfare labelling schemes contributed to consumer confusion. Consumers misinterpreted labels that are visually similar or struggle to compare products that bear different labels, themselves using overlapping claims (e.g. nutrition, animal welfare, and sustainability). Even where there was only a single animal welfare label present on a product, consumers were still confused due to the presence of labels covering other topics, or because the label covered various dimensions that they did not fully understand.

Evidence also showed that current animal welfare labelling schemes were a contributing factor to a “renationalisation” of some segments of the market. The study found that existing schemes with animal welfare claims often included national origin claims as well. Those schemes frequently used national symbols and national colours in promotional marketing, further encouraging consumers to purchase nationally produced food. In addition, scheme managers often faced geographical, administrative and supply chain challenges to accepting non-national industry operators, which further contributed to limiting the operations of existing schemes to national markets and national supply chains.

Finally, the existence of multiple labelling schemes had some negative implications for producers providing the highest welfare standards. Labels had different welfare requirements even when they cover the same species or were located in the same country. This made it difficult to assess how welfare-friendly a product is within the same market. In addition, retailers influence in the supply chain could also impact negatively producers raising animals to higher welfare standards. This was because retailers could decide to emphasise the animal welfare-friendliness of some products with low-mid standards of animal welfare as a marketing tool, driven by the combination of pricing competition with other retailers and the belief that consumers are unlikely to pay more for the highest welfare standards.

E.4 State of Play

Extent to which current labelling schemes on animal welfare respond to the consumer demand

Existing animal welfare labelling schemes provided a wide coverage of species and dimensions that was consistent with the broad expectations of consumers as recorded

in the consumer survey. However, as most of the schemes identified were administered at a national level, 16 of the 27 EU Member States had no national-level labelling scheme with animal welfare claims. It was unclear how schemes with EU (e.g. organic labelling) or international coverage may be contributing to address this gap.

It was common for animal welfare labelling schemes to include sustainability claims. These claims spanned environment, food safety, traceability, food quality and social responsibility. However, the specific standards used to uphold these claims varied significantly. This made it difficult for consumers to accurately interpret the different sustainability claims.

As part of the state of play, the study also examined non-food products with animal welfare claims (such as cosmetics, fur or feathers) present in the EU to identify best practices. The main learning drawn is that marketing is an important factor in encouraging consumers to choose a more welfare-friendly product.

Extent to which current labelling schemes on animal welfare contribute to add value to the food chain

The study carried out eight in-depth case studies on a diverse selection of labelling schemes with animal welfare claims currently found in the EU across six Member States. This evidence, together with the other data collected, established the extent to which current labelling schemes on animal welfare contribute to add value to the food chain. The study explored price differentials between products with and without claims, the distribution of value across the different actors in the supply chain, and the main costs and benefit categories for each stakeholder among other issues.

Evidence collected in the case studies pointed to the fact that products bearing animal welfare claims were generally more expensive than conventional products (six of the eight studied labelled products). The range of price premiums documented in case studies was between 18% and 94%. However, in some of the cases, there were no price premiums. The sources of price differences (or lack of price difference) between labelled vs. conventional (non-labelled) products were multiple and included market demand, supply chain dynamics, retail pricing strategies and, in some cases, higher production costs. The differences varied per country and industry. Within the same industry, 'basic products' such as dairy milk had the lowest price differences.

Where price differences between labelled and conventional products were linked to production costs, those included investment costs and operating costs. Operating costs were particularly significant for broiler production and are related to feed (due to using slow-growth breeds). Investment costs (to allow for more space for the animals) were experienced principally by pig and broiler producers. However, for other products, such as dairy milk, additional costs were principally found at processor level or retailer level, and corresponded to operational costs mainly (i.e. traceability costs).

The distribution of value across the supply chain was not easily documented, due to a general lack of transparency beyond the primary production stage. The evidence available showed that:

- retailers draw the biggest margins: the examples explored in the study suggested that retailers benefited more from the higher prices paid by consumers for higher welfare products;
- processors had opportunities to draw margins by adding value to the product, and that commonly happened in relation to by-products (for dairy in particular, with cheese for example) but also by generating different cuts for meat, which then got sold at a premium to retailers;
- farmers received the lowest margin. Farmers would get compensated for the higher costs of production, but this compensation was not always sufficient to allow them to receive a better income compared to conventional products.

There was a combination of factors leading business operators to join schemes, which were similar across sectors. The main factors were a desire to improve or maintain animal health, to receive a price premium or achieve income stability, to maintain or increase market access, to improve one's reputation, and to contribute to animal welfare. For some operators, joining the schemes was a matter of necessity if their primary buyers requested it from them. For others, it was a choice, to diversify their market or generate higher and more stable income.

Challenges to adhering to animal welfare labelling schemes varied from label to label but also from species to species within the same label. Audit costs and administrative costs associated with membership were common to all schemes.

The distribution of costs and benefits of each of the analysed schemes was as follows:

- Adherents incurred adjustment costs (changes in production to meet the scheme's requirements) and administrative costs (those that companies incur to comply with the requirements of the label). They benefited from market access, financial rewards and/or stabilised income, improved brand image/reputation and improved animal health.
- Consumers incurred a price premium on some products, though not all. Animal welfare information empowered them to make an informed choice. Higher product quality and food safety could be additional benefits.
- The distribution of costs and benefits across the chain was difficult to establish, as discussed above. The findings showed that farmers obtained the smallest margin of the added value, while retailers obtained the largest one. The size of the margin obtained by different actors depends on the supply chain dynamics.

Many animal welfare labelling schemes did not grant membership to their scheme to producers from other countries. This was often because those schemes also include geographical origin claims, but sometimes because of geographical limitations related to audit and controls.

Extent to which current labelling schemes on animal welfare contribute to improve the welfare of animals

The extent to which animal welfare labelling schemes offer a significant improvement in the lives of animals is difficult to assess precisely, due to the absence of any clear baseline, limited monitoring and no evaluations. As such, establishing a clear and direct link between animal welfare improvements and labelling schemes was challenging.

To overcome this, the study assessed the impact of the schemes by using approximating parameters, in particular the scope of the schemes and the robustness of their controls.

The first parameter studied was the scope of the existing labelling schemes in the EU. The study found that a significant proportion of existing labelling schemes covered the full duration of life of animals until their death, incorporating standards for welfare on-farm, during transport, and at slaughter. Labelling schemes covered the various farming species and types of production in the EU. Of the 51 schemes reviewed, 48 provided clear data on the animal species covered. Of these 48 schemes, pigs were the predominant species covered (32 labels). This was followed by beef cattle (27) and broilers (27). 15 schemes covered all of the most commonly covered species: pigs, dairy cattle, beef cattle, laying hens and broilers.

The other parameter used was the robustness of the labelling schemes controls. The study made general observations based on: how far beyond existing animal welfare legislation the scheme went and how it was controlled. In that regard, most of the labels mapped had criteria that went beyond the national and EU legislation. Most also relied on third-party auditors for verifying compliance with the scheme's standards. On that basis, it would be reasonable to assume that they contributed to improvement in certain aspects of the life of the animals.

Schemes with a multi-tier approach would set their lowest level only marginally above EU legislation, then increase their requirements for each level. Therefore, it was likely that multi-tier schemes did not provide major improvements at a large scale, as most of the adherents to the scheme complied only with the lowest level. At a minimum, it could be said that labels likely contributed to better compliance with animal welfare legislation, by introducing additional controls to those performed by national competent authorities. Still, the greatest impact that could be assumed to take place was in those cases when there was a combination of high standards and robust audits.

Further, incomplete data suggested that some labels, including relatively recent ones, had begun to occupy significant shares of the market of home-grown animals. This was notably visible for broilers in France (Label Rouge covers 12% of the total broiler production and 50% of the free-range production in France) and broilers and pigs in the Netherlands (Beter Leven covers 100% of pigs and broilers production in the Netherlands, and 87% of the laying hens). The capacity for those labels to expand further could be linked to matters of design, i.e., whether labels include scales and are designed to include the lowest welfare segment of the market, or not. It could also be linked to the question of capacity within the market to absorb higher welfare and therefore more expensive products.

This study contributed to gathering evidence that could support any potential initiative concerning animal welfare labelling in the European Union. The study findings showed that there was a clear demand from consumers for more information on this topic, as well as some confusion being caused by the presence of multiple labels in the market. There were also other challenges, such as the distortion of competition between EU operators, the functioning of the internal market, and a potential 'renationalisation' of the markets. The study also showed that, in the context of the Farm to Fork strategy, there would be EU value added for the Commission to consider options for animal welfare labelling to better transmit value through the food chain. There was a clear need for raising awareness and simplifying the existing state of play of labelling schemes with animal welfare claims in the EU.

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1 Introduction

This is the final report for the “Study on animal welfare labelling”. This study was commissioned by the European Commission’s Directorate General in charge of health and food safety - DG SANTE (project reference: SANTE/2021/G5/001) - in April 2021 and has been undertaken by ICF supported by a team of experts.

As per the Terms of Reference (ToR), the purpose of this study was to assist the Commission in gathering evidence that could support potential initiatives concerning animal welfare labelling in Europe. This has involved collecting qualitative and quantitative data on the consumers’ awareness of animal welfare standards and demand for information. Data was collected also on existing labelling schemes in EU Member States with animal welfare claims, their design, operation and impacts. The study also presents best practices based on the experience gained by those schemes.

This final report presents:

- a description of the methodology followed (section 2);
- the study findings (see section 3);
- the conclusions (see section 4).

This report is supported by the following annexes:

- Annex 1 presents the study matrix
- Annex 2 presents the consumer survey questionnaire
- Annex 3 presents the targeted survey questionnaires
- Annex 4 presents the number of respondents to the consumer survey by Member State
- Annex 5 presents the results of the choice experiment analysis
- Annex 6 includes the synopsis report
- Annex 7 presents a detailed mapping of labelling schemes that include animal welfare claims in the EU
- Annex 8 contains the write-ups of the eight case studies

2 Methodology

This study applied a mixed-method approach, described in this section.

2.1 Inception phase

The purpose of the inception phase was to update the proposed methodological approach to the study, refine the study matrix, data collection tools and final selection of the case studies, and obtain an overview of the data sources available.

The following tasks were completed:

- a kick-off meeting on 12 May 2021, between the study team and the ISSG to discuss the methodology and work plan proposed by the team.
- the refinement of the study methodology by amending the study matrix, identifying data sources, and data availability;
- exploratory interviews with chosen experts with a broad understanding of the different topics of interest to help shape the study methodology
- scoping desk research to corroborate the choice of case studies and develop data collection tools.
- preliminary field research with scheme owners and experts for the case studies, to discuss access to data on standards, costs (fees, audits), prices, and controls, among other things.

The inception report meeting was held on 24 June 2021, to agree the final study matrix, methodological approach and address any outstanding issues related to this assignment. The final version of the inception report was submitted on 15 July 2021.

2.2 Desk research

The study team has carried out a systematic mapping, extraction and analysis of all relevant information available from secondary sources. The sources reviewed have been published between 2010 and 2020, as specified in the Terms of Reference. The team also considered older as well as more recent sources of information when those were flagged as particularly good and relevant by experts and stakeholders. The documents reviewed include:

- EU-funded research
- research funded/endorsed by NCAs, NGOs and industry
- academic papers
- labelling scheme standards
- statistical datasets

Many of the sources mapped in the initial desk research covered multiple topics (e.g., Consumer information and awareness, as well as Food labels). Table 1 below provides information on how many sources have been reviewed for each of these research topics.

Table 1. Number of sources mapped by topic

Topic	N. of sources
Consumer information and awareness	18
Consumer choice and willingness to pay	15
Food labels	20
Animal welfare and labels	25
Legislation	12

2.3 Mapping of labelling schemes

The study team has mapped 51 labels with animal welfare claims present in the EU Member States and the UK.

This exercise has helped document and assess the extent to which existing labelling schemes differed in terms of the guarantees they offered to consumers (type of standards, level of controls, etc.). The complete mapping is presented in Annex 7 as an Excel table. This includes information on the label's country and scope, the type of label, its history and governance, controls and its impact on animal welfare and the wider market. It also looks at the approach taken to products imported from third countries and the costs and benefits of the scheme. An outline of the type of content mapped is provided in Table 2.

Table 2. Labelling schemes mapping content

Headings	Subheadings
Contextual information	<ul style="list-style-type: none"> Name of labelling scheme Country Scope (e.g., animal species within the scope of the scheme; steps of production; dimensions of welfare covered by the scheme; tiers); link to relevant information (website of the scheme owner; documents describing the scheme's standards)
Type of labelling	<ul style="list-style-type: none"> Scale type (when a scale is used), logo type, sentence type, code type Initiative type (e.g. public, private, NGO, mixed) Whether animal welfare is integrated into a wider labelling scheme or not
History and motivation for the scheme	<ul style="list-style-type: none"> Drivers behind the introduction of the scheme (e.g., market drivers; regulatory drivers)
Governance	<ul style="list-style-type: none"> Organisations in charge of setting standards and providing guidance External organisations endorsing/promoting the scheme (e.g., NGOs) Organisations in charge of controls
Checks and enforcement	<ul style="list-style-type: none"> Who performs checks (third-party auditor, scheme's own auditor, farmer / self-audit) When audits are carried out (frequency) Whether audits are announced or not (and how far in advance they are announced) What types of controls are carried out (e.g., on-farm audits; documentary checks) What indicators are used during auditing How long an audit takes Whether audits always assess animal welfare or whether it only occasionally does so alongside other aspects e.g. safety, sustainability, health, medication use, etc. Whether non-compliances are addressed and, if so, how (e.g. is there a classification system to distinguish serious non-compliances from non-serious ones, tools used to escalate non-compliance issues, do non-compliances affect the frequency of audits) Any data the scheme owner or scheme members may share on compliance and outcomes

Headings	Subheadings
Impacts on animal welfare	<ul style="list-style-type: none"> Degree to which standards go beyond minimum legislative requirements Review of the labels' own statements and standards, and comparison between these and existing legislation, together with a review of the schemes' monitoring and compliance protocols to infer impact.
Other impacts	<ul style="list-style-type: none"> Review of statements and standards each scheme has, beyond animal welfare. Estimate of the market share of the labelled products on the product segment at national level.
Approaches towards products imported from third countries	<ul style="list-style-type: none"> E.g., rules for mutual recognition of standards; recognition of checks performed in third countries
Costs and benefits of the scheme	<ul style="list-style-type: none"> Data on intra-EU trade for products bearing the label/claim Price premium Costs associated with labelling/certification

2.4 Consultations

The study is based on primary data collected from three sources:

- a consumer survey
- targeted surveys of industry bodies and the scheme members of eight selected labelling schemes
- eight case studies in six different countries

2.4.1 Consumer survey

A consumer survey was implemented to collect data on EU consumers' understanding, expectations, needs, and preferences towards EU action in the area of animal welfare labelling. It measured also their willingness to pay¹ for higher animal welfare products. The survey also measured consumers' understanding of how farm animals are kept and treated.

The consumer survey targeted a selection of consumers in each of the 27 EU Member States. To achieve a representative sample of the target population in each country, ICF recruited 400 survey respondents from established consumer panels in all Member States, except for Cyprus, Luxembourg and Malta. To further increase the validity of the sample, the survey included quotas for key characteristics of gender and age, calculated according to national population data for each country.

Cyprus, Luxembourg and Malta have smaller populations, therefore a sample of 300 respondents was used there. All countries met the sampling and demographic quota of 400 responses (or 300 countries on the three smaller countries²). The number of responses per Member State are set out in Annex 4, including a breakdown by age and gender. The above sample was determined according to a 95% confidence level and a 5% margin of error using the following formula:

¹ Willingness to pay is the maximum price a customer is willing to pay for a product or service. In some cases it can be a price range.

² The only exception being Estonia with 299 respondents

$$sample\ size = \frac{\left(\frac{z^2 p(1-p)}{e^2}\right)}{1 + \left(\frac{z^2 p(1-p)}{e^2 N}\right)}$$

N = population size

e = study margin of error

z = z-score (derived from confidence level)

p = study p-value (confidence level)

Choice experiment

The survey included a choice experiment to collect data on consumer preferences towards animal welfare labels and willingness to pay. A discrete choice experiment (DCE) is a widely used technique for eliciting preferences and notably to assess willingness to pay. The DCE focused on testing what attributes of animal welfare matter most to consumers and how that affects willingness –to pay (e.g.: are consumers willing to pay more for freedom of movement or effective stunning?). The DCE was completed across all EU Member States except Luxembourg.

The consumer survey questionnaire and DCE used can be found in Annex 2.

2.4.2 Targeted surveys

The study included two targeted surveys, one with industry organisations at EU level and in Member States, and another one targeting scheme adherents. Both aimed to gather primary data on issues that were not sufficiently documented in the literature. The surveys were also designed to corroborate information from other research tasks, by gathering and comparing data from different industry organisations on the added value of existing schemes and competitiveness issues. Additionally, the survey has aimed to provide a preliminary assessment of the range of industry perspectives on the state of play of existing labels, and the potential for EU intervention.

The surveys offer data points that can then be triangulated with other data points gathered through interviews and desk research.

Survey of industry organisations at EU and Member State levels

The industry organisations survey targeted EU-level and national industry representatives. The survey was launched on 5 August 2021 and ran for seven weeks. The survey was disseminated through several channels, including 166 targeted emails.

Table 3 outlines the responses received for each stakeholder group. The study team expected a low response rate from these stakeholders based on similar surveys distributed to the same group. The team contacted businesses and industry organisations directly to complete the survey. Besides direct contacts for industry representative organisations, ICF also used a snowballing approach and asked them to disseminate the survey and gather inputs from their relevant contacts and members. After the first contact, the team sent two additional reminders to complete the survey.

Table 3. Summary of survey responses

Stakeholder type	Contacted stakeholders	Total responses	Response rate
EU level trade associations	33	18	54%
National level trade associations based in the EU	134	28	21%

TOTAL	167	46
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The industry survey gathered data on respondents’ perspectives on the problems arising from the state of play of labelling schemes: their proliferation, the extent of consumer confusion, and the renationalisation of markets. It explored also their views on the characteristics of existing animal welfare labels.

2.4.3 Survey of scheme members

The study included a survey for scheme adherents. The questionnaire was designed in English and translated into the language of the country in which the scheme is established.

Table 4 outlines the responses received by the label scheme members.

Table 4. Summary of responses to scheme’s members survey

Label	Country	Number of responses
Beter Leven	The Netherlands	2
ITW	Germany	9
Pro Weideland (Haltungsform)	Germany	4
Friland	Denmark	0 ³
Bedre Dyrevelfaerd	Denmark	8
Svensk Fågels	Sweden	38
Label Rouge	France	9
Welfair®	Spain	19

The study relied upon scheme owners for dissemination. This meant that ICF had no control over the sample of these surveys. As anticipated, the degree of participation in disseminating and responding to the survey has varied greatly from label to label.

The scheme members survey explored issues linked to adhering to labelling schemes, such as the rationale for adhering, challenges associated with adhering, and the associated costs and benefits. It also explored adherents’ perspectives on the proliferation of labels and their impacts, including potential distortions of competition.

The questionnaires for the two targeted surveys are provided in Annex 3.

2.4.4 Case studies

In-depth case studies have been carried out to capture data on a selection of labelling schemes with animal welfare claims currently found in the EU. This comes as a complement to the mapping task (section 2.3), to provide more in-depth evidence.

During the preliminary research, the study team confirmed that most animal welfare schemes are found in Northern / Western Europe. Recently, new schemes have appeared in the southern Member States (i.e. Italy, Spain or Portugal), and/or eastern Member States (i.e. Poland). The schemes found in the EU are also overwhelmingly private. Several Member States are currently involved in public initiatives aiming to set

³ The label mentioned, after receiving the survey, that they were not allowed to distribute it to their members. The case study gathered the data using additional interviews with scheme members, managers and experts.

up national labels (such as in the Netherlands, Germany, or Italy). However, these initiatives are either too recent or have not yet begun to operate.

The selection of case studies reflects this state of play. All case studies have focused on one species per labelling scheme, and for certain research questions, on one specific product (e.g. chicken breast). Table 5 shows a summary of the labels selected.

Table 5. Case study selection

Label and animal species	Animal species covered by the scheme	Country	Type of initiative	Tier	Focus	Coverage
Bedre Dyrevelfaerd (pigs)	Broilers, pigs, cattle (dairy and beef)	Denmark	Public	Multi-tier	Animal welfare	On farm, and transport
Friland (pigs)	Pigs and beef cattle	Denmark	Private	Single-tier	Beyond animal welfare	On farm, transport and slaughter
Label Rouge (broilers)	Laying hens, pigs, cattle (dairy and beef), calves, sheep and fish	France	Mixed (public / private)	Single-tier	Beyond animal welfare	On farm
Initiative Tierwohl (ITW) (pigs)	Broilers, laying hens pigs, and other poultry	Germany	Private	Single-tier	Beyond animal welfare	On farm
Pro Weideland (Haltungsform) (dairy)	Broilers, pigs, cattle (dairy and beef), and other poultry	Germany	Private	Multi-tier	Animal welfare	On farm
Beter Leven (broilers)	Broilers, laying hens pigs, cattle (dairy and beef), calves, rabbits, and other poultry	The Netherlands	Mixed (public / private)	Multi-tier	Animal welfare	On farm, transport and slaughter
Welfair® (dairy)	Broilers, laying hens, pigs, cattle (dairy and beef), sheep, rabbits and other poultry	Spain	Private	Single-tier	Animal welfare	On farm and slaughter
Svensk Fågels (broilers)	Broilers and other poultry	Sweden	Private	Single-tier	Beyond animal welfare	On farm, transport and slaughter

The write-up of the case studies is provided in Annex 8.

Summary of data available for each case study

Data availability varied across the selected supply chains studied for this report. Price data has been easily accessible for most of these supply chains, but not for all. Furthermore, production costs were available for some of the cases only. In some cases (e.g. Welfair®), the data has been provided by stakeholders in interviews, whereas in others (e.g. Better Leven) that came from desk research. For most cases (except Welfair®, ITW and Pro Weidland), it has not been possible to gather data on processor costs, transporter costs or retailer costs. In some cases studies exploring the national value chain of a labelled product, using estimates, could be relied upon. For example, a recent study in the Netherlands explores the broilers' value chain and explains limitations to accessing this data. In the report, researchers used estimates based on a model developed by Wageningen Economic Research, itself based on averages from available research (Van Horne, 2020).

Table 6 shows the summary of data available for the case studies.

Table 6. Data available per case study

	Availability of cost data	Availability of price data	Interviews completed	Survey responses
Welfair® (dairy) (ES)	Cost data available across the value chain	On the spot price data for non-labelled and labelled products available	12	19
Svensk Fågels (broilers) (SE)	Cost data not available. Interviews have only provided qualitative data	On the spot price data for non-labelled and labelled products available	12	38
Beter Leven (broilers) (NL)	Published report available on estimated costs at farm level. No quantitative data available for other actors	On the spot price data for non-labelled and labelled products available	10	2
Initiative Tierwohl (ITW) (pigs) (DE)	Cost data available across the value chain.	On the spot price data for non-labelled and labelled products available	11	9
Pro Weidland (Haltungsform) (dairy) (DE)	Cost data available across the value chain.	On the spot price data for non-labelled and labelled products available	10	4
Bedre Dyrevelfaerd (pigs) (DK)	Data available for farm related costs for labelled and non-labelled. Data for other actors in the value chain (e.g. transporters, processors) is not public.	On the spot price data for non-labelled and labelled products available	12	8
Friland (pigs) (DK)			10	0
Label Rouge (broilers) (FR)	Cost data available at farm level. No quantitative data available for other actors	On the spot price data for non-labelled and labelled products available	9	9

2.5 Data analysis

The study generated different types of data which led to different types and levels of analysis. Table 7 shows the different categories of data that were collected, distinguishing them not by their source but by their nature and the type of finding sought.

Table 7. Types of data analysis completed during the study

Data type	Analysis
<p>Animal welfare labelling scheme characteristics</p> <p>Data about animal welfare labelling schemes, membership, governance, and other characteristics</p>	<p>Triangulation of desk research, mapping of labelling schemes, targeted surveys and case studies data.</p>
<p>Consumer data</p> <p>Consumer awareness, sentiments about animal welfare and food labelling, willingness to pay, information demands, and future expectations.</p>	<p>Triangulation of consumer survey data, literature review, and market research data.</p>
<p>Costs / benefits</p> <p>Costs and benefits incurred by operators in the supply chain (farmers, processors, retailers, breeders, etc., depending on scheme design)</p>	<p>The analysis identified main stakeholders, and cost and benefit types where schemes have an impact on. The cost and benefit categories were identified using desk research data and experts' inputs.</p> <p>Case study analysis of the supply chain and comparative analysis across case studies of comparable countries, labels, and products.</p> <p>The scope of the study did not allow us to carry out a detailed value chain analysis. The study team carried followed an approach similar (in its logic and principles) to that which has been used in an earlier study titled Distribution of the added value of the organic food chain⁴ on behalf of DG AGRI. First, the value chains were mapped, then benefits and costs were defined for each actor at each step of the chain. Finally, data from surveys and case studies was triangulated and value added at each step of the chain identified (based on costs and prices at each step of the chain).</p>
<p>Prices</p> <p>On-the-spot comparative price analysis on selected products</p>	<p>Case study analysis and comparative analysis across case studies.</p> <p>Triangulation of stakeholders' perceptions with price data for the labelled product and an equivalent non-labelled product.</p>
<p>Impact</p> <p>Animal welfare labelling schemes impacts on:</p> <p>animal welfare producers of high welfare products</p>	<p>Case study and comparative analysis and critical assessment of claims to effectiveness.</p> <p>The analysis included a comparison across case studies to provide some control for qualifying claims made in the literature or by stakeholders.</p>

⁴ Sanders, J., Gambelli, D., Lernoud, J., Orsini, S., Padel, S., Stolze, M., Willer, H. and Zanolli, R. (2016) Distribution of the added value of the organic food chain. Braunschweig: Thünen Institute of Farm Economics

Data type	Analysis
the single market (renationalisation effects, competition)	

To assess the costs and benefits for each actor and how these are distributed along the chain, the study used desk research and the consultation activities to identify the following typology of relevant costs and benefits, as outlined in Table 8.

Table 8. Cost-benefit categories

Administrative costs	Adjustment Costs	Benefits
Farm Level		
staff training	housing	Price premium
consulting services	equipment used	Increase in subsidies
additional staff	feed	Access to new national markets
audit costs	animal density	Better animal health
Other administrative costs	breeds	Better working conditions
	enrichment material (e.g. straw)	Improved image / reputation
	mutilations	Price Stability
	building maintenance	Increased productivity
	frequency or methods of monitoring animal welfare	Other benefits
	frequency or methods of monitoring ambient conditions (temperature, air quality, etc.)	
	Other adjustment costs	
Processor and retail level		
staff training	Transport practices	Price premium
consulting services	Stunning methods	Increase in subsidies
additional staff	Logo/scheme costs	Access to new national markets
audit costs	Other compliance production costs	Better animal health
Other compliance administrative costs		Better working conditions
		Improved image / reputation
		Price Stability
		Increased productivity
		Other benefits

2.6 Caveats and limitations

The following limitations should be noted concerning the data collection activities undertaken and the solutions adopted to address them.

- The inception report identified a set of challenges regarding data availability:
 - (1) Collecting evidence on the distribution of costs and benefits across different actors within a supply chain is notoriously difficult. This reflects the overall sensitivity of the information from the perspective of members of the supply chain. Because of this, data collected on costs and benefits vary widely across case studies, as explained in the data available summary (see Table 5 above). To address this challenge, the study team has interviewed experts to gather estimates of costs and benefits. In some cases, like Sweden, the study team has only gathered qualitative evidence.
 - (2) Time series of price data was not available for any labelled products in the countries where the case studies were carried out. This means that, when price analysis was carried out, it was not possible to control for elements of price variations between labelled and non-labelled products that may have been accidental rather than structural.
- The scheme members survey has had very low replies for some of the studied labels (as mentioned in section 2.4.3). Obstacles and notably reluctance to share cost and benefit data were expected. It has not been possible to overcome all of them despite the team's efforts. The study team has interviewed experts, supply chain actors and reviewed desk research available to mitigate this. The study team has used qualitative assessments when quantitative data was not available.

3 Findings

3.1 Problem definition

3.1.1 To which extent consumers in the EU are informed of the conditions under which farmed animals are kept and treated? What kind of sources are consumers using today to get information on this issue?

A sufficient level of awareness on animal farming is a pre-condition for relevant consumer information to be understood and to have an impact. However, EU citizens' command of the issues at stake is limited. Evidence shows that EU consumers are not well-informed about the conditions under which farmed animals are kept and treated. Their understanding of specific – yet core to welfare – aspects of EU animal farming practices is often inaccurate. This contrasts with their declared level of concern, which has been growing steadily as has been widely documented. The consumer context for animal welfare labelling is as such not dissimilar to that of other labelling initiatives, whether focused on nutrition or sustainability: consumers' awareness is often limited. Similar to what has been explored for other dimensions of food, animal welfare labelling may therefore act as a bridge between consumers' concerns and their lack of knowledge. Food labels would be a usual source of product information for some consumers, although traditional media are a primary source of information on animal farming. This suggests that steering consumer behaviours towards those products that match their expectations may usefully combine labelling and information campaigns.

Level of awareness of animal welfare and animal farming practices

Most EU citizens report having at least some interest in the welfare of farmed animals: in the 2016 Eurobarometer, 94% said it was 'very' or 'somewhat' important⁵. However, this does not necessarily translate to a good level of knowledge about the welfare of farmed animals or farming practices. For example, a study completed with a series of surveys in five European countries⁶ found that 75% of consumers were not familiar with modern farming practices. More than half of the respondents (ranging 52%-89%, depending on the information source) had never heard of production diseases.

The relatively low level of awareness that consumers have about the reality of farm animal welfare in the EU is further corroborated by the consumer survey findings. Respondents were given 11 statements about farming practices and animal welfare in the EU and asked whether they believed the statement was true or false. For each statement that they answered correctly, they would receive a score of 1. However, the average score for 10,089 survey respondents was just 4 out of a potential maximum of 11, with only minor variation across individual Member States which were all within +/- 1.2 of this figure. There was similarly no notable variation in the average scores according to demographic factors such as gender, age or occupation. No single respondent achieved the maximum score of 11, and only 1% achieved a score of 9 or 10.

These results show that consumers are not well aware of the core features of EU animal farming. However, it does not suggest that consumers have necessarily a 'rosier' image of animal farming than reality: in some examples, the majority of respondents perceive production practices to be *more* animal welfare friendly than the reality; in others they perceive them to be *less* animal welfare friendly than they are. This does not appear to be influenced by whether or not the statement itself is phrased positively or negatively. For

⁵ European Commission (2016) Eurobarometer: Attitudes of Europeans towards Animal Welfare. Available at: <https://europa.eu/eurobarometer/surveys/detail/2096>

⁶ Clark, B., Panzone, L. A., Stewart, G. B., Kyriazakis, I., Niemi, J. K., Latvala, T., Tranter, R., Jones, P., Frewer, L. J. (2019), Consumer attitudes towards production diseases in intensive production systems. Note: The surveys were conducted in Germany, Spain, Poland, UK and Finland on broilers, pigs and hens.

example, statements receiving some of the largest proportions of incorrect answers were 'Most pigs are given growth-promoting antibiotics via their feed' (a false statement, at which 58%; n=10,089 said true and 13% said false) and 'Most dairy calves are allowed to suckle their mother for at least a couple of weeks' (also a false statement, at which 40% said true and 24% said false). Additionally, the proportion of respondents answering 'Don't know' at these statements were consistently fairly high – ranging from 29% (in response to the statement 'Most meat chickens farmed in the EU are from selected breeds designed for rapid growth') up to 50% (in response to the statement 'It is common for laying hens to have their beaks trimmed/amputated').

A recent European Parliament study on animal welfare labelling has similar findings. It highlights that, in literature, consumers are shown to be 'poorly informed of the reality of modern farming' and, as such, their concerns are not necessarily a reliable basis for legislative revisions.⁷ A study by Frick et al.⁸ argues that this lack of awareness may be influenced by the consumers predominantly living in urban centres, with no practical or taught knowledge of animal farming, and their exposure to marketing that conveys unrealistic images of animal farming. However, there is little evidence from the consumer survey to suggest that consumers in rural areas have a greater level of awareness about animal farming practices than those in urban areas: the average scores for the true/false statements for each group varied by only 0.3 (4.3 for those in rural areas; n=2,735 and 4 for those in urban areas; n=7,288). This suggests that most consumers living in rural areas are equally disconnected from the realities of animal farming.

Overall, this evidence shows that there is a disconnect between EU consumers' perceptions of the conditions in which animals are kept and reared, and the reality. Hence, consumers who declare a concern for the welfare of animals would benefit from receiving information about the conditions in which animals are farmed and kept. This would likely enable them to make better-informed decisions about the food products they buy. Indeed, only a third of EU respondents, and always less than 50% of respondents in each Member State declared that there was sufficient information available to allow consumers to make informed choices about the food products they buy based on animal welfare (see Figure 1).

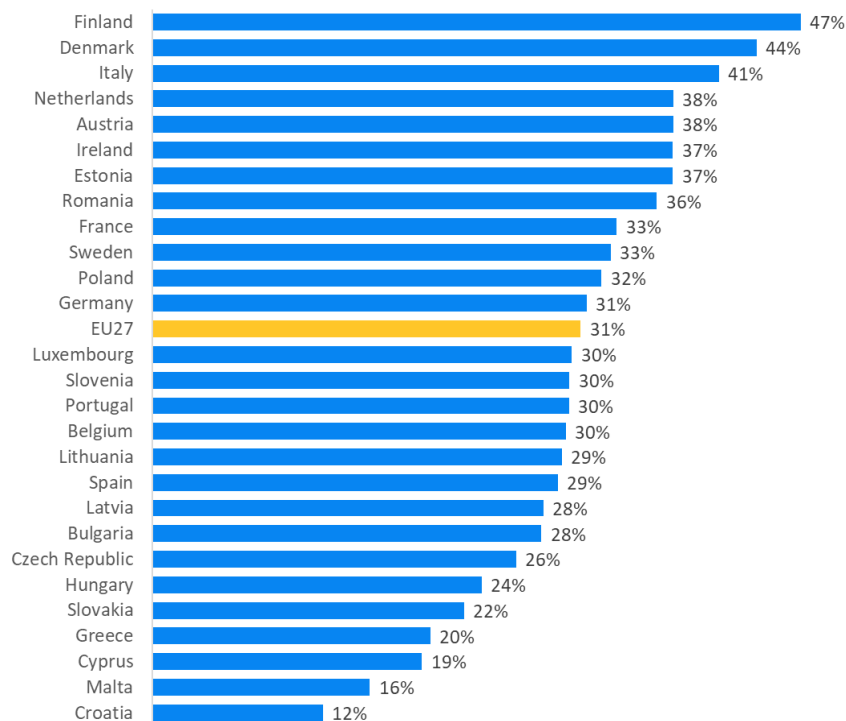
⁷ European Parliament (2021), Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level. Available at:

[https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU\(2021\)662643_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU(2021)662643_EN.pdf)

⁸ Frick, M. J., Birkenholz, R. J., Macthmes, K. (1995), Rural and urban adult knowledge and perceptions of agriculture (available at

https://www.researchgate.net/publication/242324093_RURAL_AND_URBAN_ADULT_KNOWLEDGE_AND_PERCEPTIONS_OF_AGRICULTURE) / Denton, S. (2014), The Rural Past-in-Present and Postwar Sub/urban Progress (available at <https://core.ac.uk/download/pdf/162640818.pdf>)

Figure 1. Respondents agreeing with the statement 'Overall, there is sufficient information available in [your country] to allow consumers to make informed choices about the food products they buy based on animal welfare'



Source: Consumer survey (n=10,089)

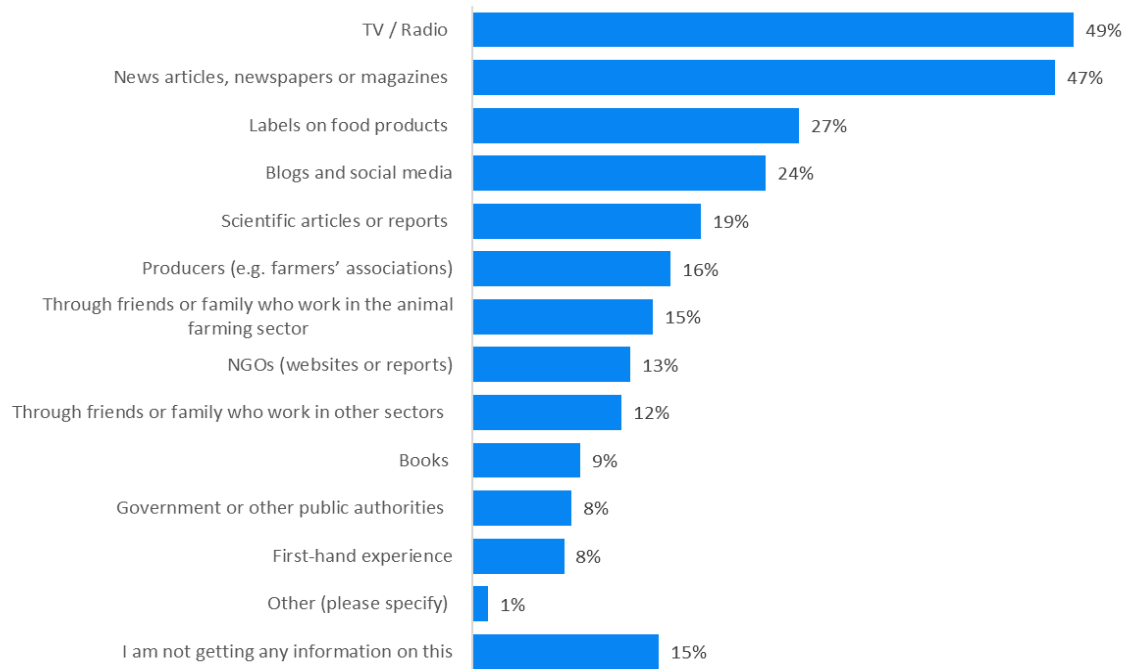
Note: These figures include respondents who agreed and strongly agreed.

It can be noted that most animal welfare labels currently found in the EU are present in most of the countries where above-average proportions of respondents agreed with the statement (as seen in the figure above). However, the evidence collected in the survey could not test respondents' awareness of those labels, therefore this apparent correlation may only be coincidental.

Preferred sources of information

Respondents to the consumer survey were asked where they got information on how farm animals were kept and treated. As shown in Figure 2, the responses suggested that media sources were used more frequently than food labels. Specifically, almost half said they got information from TV/radio (49%; n=10,089), closely followed by 47% that got information from news articles, newspapers or magazines. Comparatively, just over a quarter used food labels (27%) which was closely followed by blogs and social media (24%). This highlights how little information is found on this topic on food labels. Indeed, labels specifically dedicated to farming conditions are found on only some products and in a minority of Member States (as discussed in further detail in section 3.4). The findings also suggest that it would be more useful to rely on traditional media sources to raise awareness, as a potential accompanying measure to an EU level label.

Figure 2. Sources used by European consumers to get information on how farm animals are kept and treated



Source: Consumer survey (n=10,089)

While labels may be used as an information source, their influence on purchasing decisions may be limited. As an illustration, 14% of the Bulgarian respondents that said they got information about animal farming and keeping practices from food labels (n=121) also said that they either 'never' or 'not very often' thought about animal welfare when buying any type of animal product. This is suggestive of the multiple factors influencing food purchasing decisions. Those have been discussed at greater length in the literature, and notably price, taste, and brand loyalty. As noted by others, a labelling initiative can be reinforced with information campaigns. Such campaigns may contribute not only to raising consumers' attention to labels but also to heightening the significance of animal welfare as a consideration when making purchasing decisions.⁹ An information campaign may also need to harness various media channels to reach a majority of consumers. For example, the increased access of younger age groups to internet sources compared to those that are older may be a reason for their generally stronger interest in animal welfare.¹⁰ This is somewhat reflected in the consumer survey, whereby those aged 55 or over were significantly less likely to report getting information on animal welfare from blogs and social media compared to those aged 34 and under.

To conclude, consumer awareness of the conditions in which farmed animals are kept and treated is low. This means there is a need for information that could be addressed at EU level. Traditional media is the main source of information for consumers, but food labelling is nevertheless a practical tool that consumers can

⁹ There is strong evidence in cognitive psychology showing that attention and motivation are tightly intertwined, such that making people attentive to something in itself contributes to making that thing more important to them too. E.g., see Kruglanski, A. W. (1996), "Motivated Social Cognition: Principles of the Interface." In *Social Psychology. Handbook of Basic Principles*, edited by E. Tory Higgins and Arie W. Kruglanski, 493–522. New York: Guilford Press

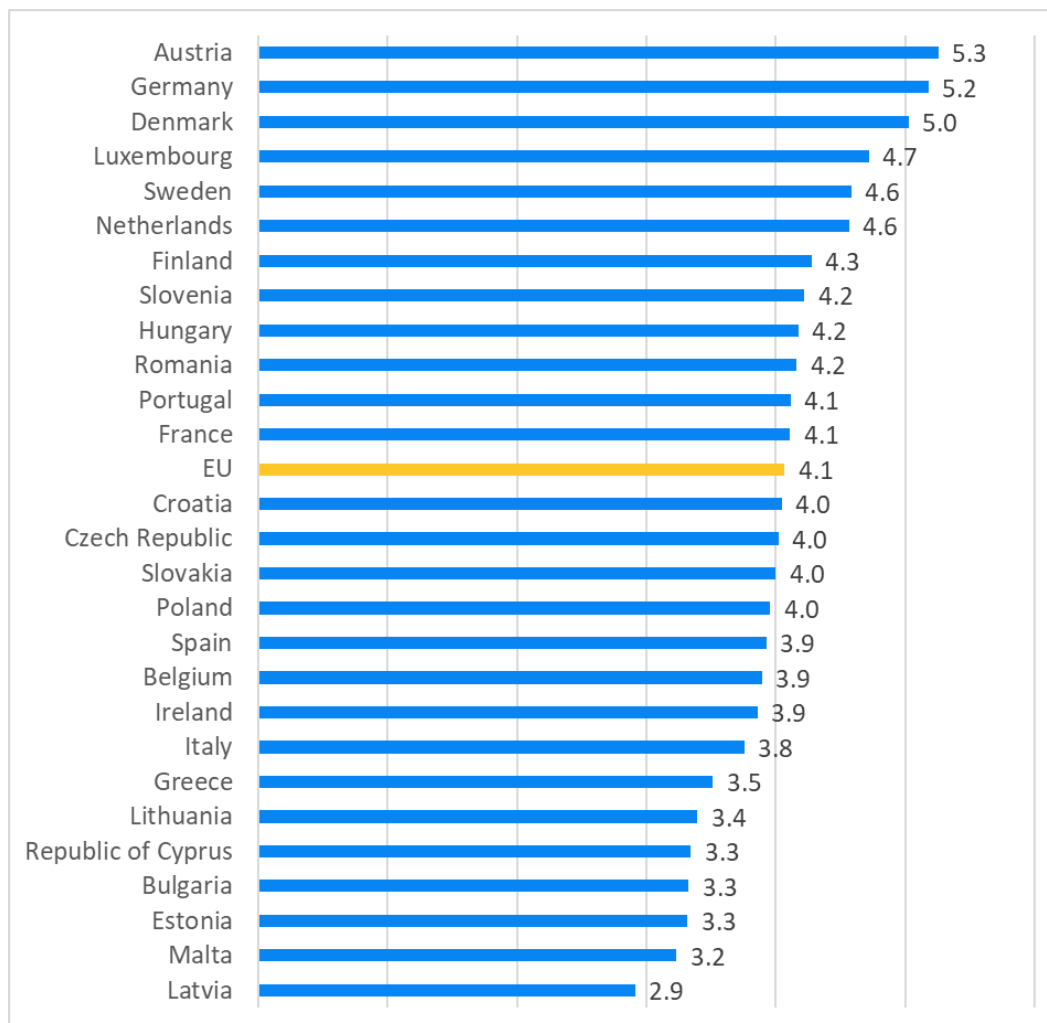
¹⁰ Clark, B. et al. (2016) A Systematic Review of Public Attitudes, Perceptions and Behaviours Towards Production Diseases Associated with Farm Animal Welfare

use to obtain information while shopping. Taken together, this suggests that an EU-wide animal welfare label would be a useful tool to improve consumer awareness. The introduction of such a label could be strengthened by a complementary traditional media campaign.

3.1.2 Does the level of awareness differ between Member States, levels of education and the socio-economic categories?

The consumer survey found that awareness levels tend to be low across the EU. It also found that consumers in some countries have more accurate perceptions of specific conditions in which animals are farmed and kept than in others. For example, consumers in Bulgaria, Hungary, Portugal, Romania and Slovakia were significantly more likely to correctly identify the statement 'Most meat chickens farmed in the EU are from selected breeds designed for rapid growth' as true (between 73% and 81% of consumers in each country, vs. 62% of all consumers). Consumers in Austria, Germany and Luxembourg were significantly more likely to identify the statement that 'Most dairy calves are allowed to suckle their mother for at least a couple of weeks' as false (between 42% and 45% of consumers in each country, compared to 24% overall). Figure 3 provides an overview for all Member States.

Figure 3. Average level of awareness across Member States (score out of 11)



Source: Consumer survey (n=10,089)

Survey findings do not suggest that consumer awareness of animal farming and keeping is correlated significantly with demographic factors. While women, younger generations, and those who have spent more time in education have been found to have a greater *concern* for animal welfare and the most *negative attitudes* towards modern farming systems,¹¹ this does not appear to translate into more accurate *knowledge* of animal farming practices. The average scores of males and consumers living in rural areas were slightly higher than their counterparts (by just 0.3) but there were no significant differences according to age, education or profession.

To conclude, there are indications that consumer awareness is tendentially greater in some Member States than others. Consumers in Northern and Western countries tend to have a slightly higher level of awareness than those in Eastern and Southern countries. Although other demographic factors (gender, age, education) have established links to consumer *interest* in animal welfare, as outlined in the literature, they do not have a particularly strong relationship to the levels of consumer *awareness* of farming practices. Average awareness levels remain low even in those Member States where awareness is relatively higher than the EU average. However, higher levels of awareness is associated with a higher use of labels.¹² As such, there is a need for better awareness across the EU and this would help to increase the use of an animal welfare label.

3.1.3 To which extent consumers in the EU are interested to receive information on the conditions under which farmed animals are kept and treated in general?

While consumers' awareness is low, their declared interest in receiving information on the conditions under which farmed animals are kept and treated is high, even after controlling for social desirability bias. There is interest in receiving information on particular welfare aspects with emphasis on naturalness (access to the outdoors, space, ability to move) on farm, and humane slaughter. There is comparatively less interest in transport. This is in contrast with the key messages from animal welfare scientists and NGOs, who have highlighted the impact of transport conditions on the welfare of farmed animals. Most consumers would like a label that covers all animal products, while a small minority indicated a preference for only certain products to be included.

The influence of the social desirability bias, i.e. the tendency for individuals to provide the answer they deem most socially desirable, was considered when questioning consumers on their concern about animal welfare. The influence of this bias is particularly salient when statements are then compared with actual behaviours, and large discrepancies are observed.¹³ The consumer survey was designed to record and address this social desirability

¹¹ Clark, B., Panzone, L. A., Stewart, L. B., Kyriazakis, I., Frewer, L. J. (2016) A Systematic Review of Public Attitudes, Perceptions and Behaviours Towards Production Diseases Associated with Farm Animal Welfare. *Journal of Agricultural and Environmental Ethics*, 29. Available at: <https://link.springer.com/article/10.1007/s10806-016-9615-x>

¹² In relation to nutrition labels, the authors of the JRC literature review note "Furthermore, better nutrition knowledge and understanding of diet-disease relationships, as well as general interest in healthier eating habits are positively related with label use". See: Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

¹³ E.g. Olynk, N. J. et al. (2010) Consumer Willingness to Pay for Livestock Credence Attribute Claim Verification. *Journal of Agricultural and Resource Economics*, 35(2). Available at:

bias by asking consumers about their interest in animal welfare practices, and their interest in receiving animal welfare information, both directly, by questioning them about *their preferences* and indirectly, by questioning them about *the preferences of the peer group* (in this instance, the population of consumers in their country of residence). Behavioural scientists and consumer researchers note that the preferences recorded by asking indirect questions about preferences tend to be a more accurate measure of actual preferences as they are more consistent with observed behaviours.¹⁴

Indirect questioning suggests a strong demand from EU consumers to receive information about farming practices and animal welfare: 70% (n=10,089) stated that at least half of the consumer population in their country would be interested in such information on food packaging. As discussed in 3.1.1, only a minority of respondents consider there is sufficient information available to allow consumers to make informed choices about the food products they buy based on animal welfare. Furthermore, for 60% of respondents, at least half of the consumer population in their country would shop differently as a result of seeing such information. These numbers are corroborated by the findings of other studies. In the 2016 Eurobarometer,¹⁵ 64% (n=27,672) of EU consumers said they would like to have more information about the conditions under which farmed animals are treated in their country and 52% said that they look for labels that identify products sourced from animal welfare-friendly production systems. A report for the European Parliament¹⁶ and a study by Alonso et al.¹⁷ similarly both observe that public concern about animal welfare has grown over time, and increasingly more consumers are refusing products that they consider to be produced unethically. Alonso goes on to conclude that higher levels of farm animal welfare should be promoted through the provision of consumer information on the management and housing of farm animal species.

The relatively strong interest among EU consumers for information on animal welfare can also be seen in the responses to a subsequent consumer survey question about the types of animal welfare information they would be interested in. Just 6% (n=9,306) selected 'None'. This was a direct question asked to all respondents, excluding those that answered 'No one' or 'Don't know' in response to the question on the proportion of consumers in their country they believed would be interested in receiving information. As such, this 6% likely represents respondents who were not *themselves* interested in receiving animal welfare information but believed others in their country were. This means that the large majority (86%) of the total survey respondents (n=10,089) indicated at least some interest in animal welfare information.

Social desirability bias cannot be ruled out when interpreting these numbers. Nonetheless, they point to a strong undercurrent of interest within the EU population. Such interest should not be construed as a purchase intention, however, as discussed later in this report.

The topics that consumers expressed the greatest interest in related to humane slaughter (40%; n=9,306), adequate feeding (40%), outdoor access (35%) and housing conditions (28%). There was far less interest in animal transport, including transport duration (16%)

<http://dx.doi.org/10.22004/ag.econ.93215>; Alonso et al. (2020) Consumers' Concerns and Perceptions of Farm Animal Welfare. *Animals* (Basel), 10(3). Available at: <https://dx.doi.org/10.3390%2Fani10030385>

¹⁴ Fisher, R. J. (1993), *Social Desirability Bias and the Validity of Indirect Questioning*. Available at: https://www.researchgate.net/publication/24098826_Social_Desirability_Bias_and_the Validity_of_Indirect_Questioning

¹⁵ European Commission (2016) Eurobarometer: Attitudes of Europeans towards Animal Welfare. Available at: <https://europa.eu/eurobarometer/surveys/detail/2096>

¹⁶ European Parliament (2017) Animal Welfare in the European Union. Available at: [https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU\(2017\)583114](https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU(2017)583114)

¹⁷ Alonso et al. (2020) Consumers' Concerns and Perceptions of Farm Animal Welfare. *Animals* (Basel), 10(3). Available at: <https://dx.doi.org/10.3390%2Fani10030385>

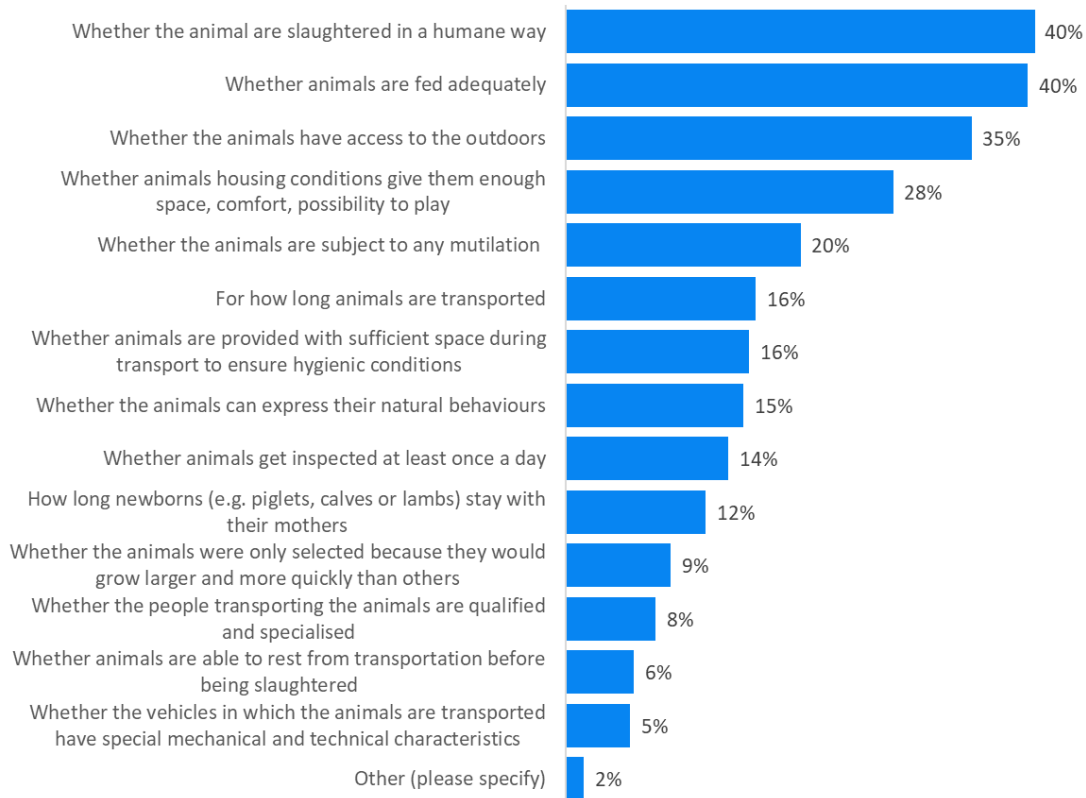
and transport conditions (16%). Figure 4 illustrates the proportions of consumers interested in each proposed area. These results align with literature to at least some extent, with outdoor access frequently cited as the most valued attribute among consumers.¹⁸ Concerns about housing conditions echo also public sentiment about the issue of caging, which was the topic of a large European citizens' initiative shortly before the study was carried out. Housing conditions and access to outdoors echo the notion of 'systems of production' which is core to the eggs' marketing standards. Yet, consumers' interest in information on access to feed and slaughter also show that their interests go beyond the characteristics of alternative systems of production.

As observed in sections 3.1.1 and 3.1.2, consumer awareness and understanding of farming practices and their welfare implications are relatively low across the EU. Therefore these interests may be based on a misunderstanding of what matters most for the welfare of animals farmed in the EU. For example, the majority of respondents (76%; n=10,089) either said they 'don't know' or incorrectly believed that the statement 'most dairy calves are allowed to suckle their mother for at least a couple of weeks' was true. This may explain the relatively low level of interest among consumers in receiving information on how long newborns stay with their mothers (12%) as the consumer preconception is that this may not be a welfare issue. By contrast, despite that 62% correctly recognise that 'most meat chickens farmed in the EU are from selected breeds designed for rapid growth', only 9% expressed interest in being further informed of this matter. This suggests that most consumers who know about this feature of modern broiler production might not understand its welfare implications.¹⁹

¹⁸ Janssen et al. (2016) Labels for Animal Husbandry Systems Meet Consumer Preferences: Results from a Meta-analysis of Consumer Studies. *Journal of Agricultural and Environmental Ethics*, 29(6). Available at: <https://doi.org/10.1007/s10806-016-9647-2>

¹⁹ E.g. increased risk of lameness, bone breakage and a higher mortality rate – CIWF (2013) Welfare Sheet: Broiler chickens. Available at: <https://www.ciwf.org.uk/media/5235309/Welfare-sheet-Broiler-chickens.pdf>

Figure 4. What information about the conditions in which animals are farmed and kept would you be interested to see on food packaging?



Source: Consumer survey (n=10,089)

In line with the high levels of reported interest among EU consumers, it is unsurprising that the large majority (84%; n=9,306) state that they would want a food label to be included on all animal-based products. Of the minority (16%) that wished to see a label on only select products, chicken (72%), pork (71%) and beef (67%) were most frequently mentioned (n=1,488). However, as described above, consumers' level of awareness of farm animal welfare may influence the stated areas of welfare in which they are interested. This in turn is likely to influence the animal species which they prioritise. Milk is less frequently mentioned by this group (36%; n=1,488) yet consumers also appear to lack knowledge on the milk production process (76%; n=10,089 said they didn't know, or incorrectly believed the statement 'most dairy calves are allowed to suckle their mother for at least a couple of weeks' to be true). 3.1.13.1.2

Demand from EU consumers to receive information on the conditions under which farmed animals are kept and treated is strong, even while considering potential social desirability bias in respondents' answers. The preferences expressed focused on slaughter, freedom of movement, housing and access to the outdoors. Transport is, however, of less interest despite its impact on the welfare of farmed animals. Not surprisingly, these preferences, because of a general lack of knowledge, seem to be based more on perceptions than on actual welfare issues. Therefore, there may be tension between responding to consumer demand and improving the most critical welfare issues. These findings suggest that consumers would likely respond positively to any future labelling initiative that incorporates welfare on the farm and during slaughter and, to a less extent, transport.

3.1.4 Are all consumers equally interested to receive such information? If not, what are the characteristics of the different categories (Members States, gender, age groups, level of education, level of income, type of diet, etc.)?

There are differences in the level of interest expressed by consumers from different Member States and socio-economic categories. These differences do not align well with the frequently noted variations in concern and awareness between North and South, West and East. There is very high interest in countries in the North of Europe (Finland, Sweden), where a sensitivity towards animal welfare has been present for a long time. But that is also in the case of the South (Spain, Italy), where public concern for animal welfare has been more recent. There is stronger interest among younger age groups and females, documented both in the consumer survey and in the literature. Consumers' views on operators' ability to provide better conditions for farmed animals vary in a manner that is consistent with general trust indexes.

There are considerable differences between Member States in the level of consumer interest in receiving animal welfare information. For example, 81% of respondents in Finland (n=405) and Italy (n=402) stated that at least half of the consumer population in their country would be interested in information about the conditions in which animals were farmed and kept. By contrast, this sentiment was much lower among consumers in Malta (55%; n=300) and Estonia (56%; n=299). However, despite these differences, at least half of the consumers in each country are in support of an animal welfare food label. A breakdown of the responses to this question for each Member State are shown in Figure 5.

These results are in contrast with the findings in section 3.1.2. There, differences in the levels of consumer awareness were better aligned with geographical location. In particular, other studies observe a typically greater interest in (and corresponding willingness to pay for) animal welfare among consumers in Northern and Western European countries compared to those in Southern and Eastern countries.²⁰ The findings of the survey challenge this trend, reflecting possibly more recent changes in consumer interest, and different attitudes to food labels than to welfare as such.

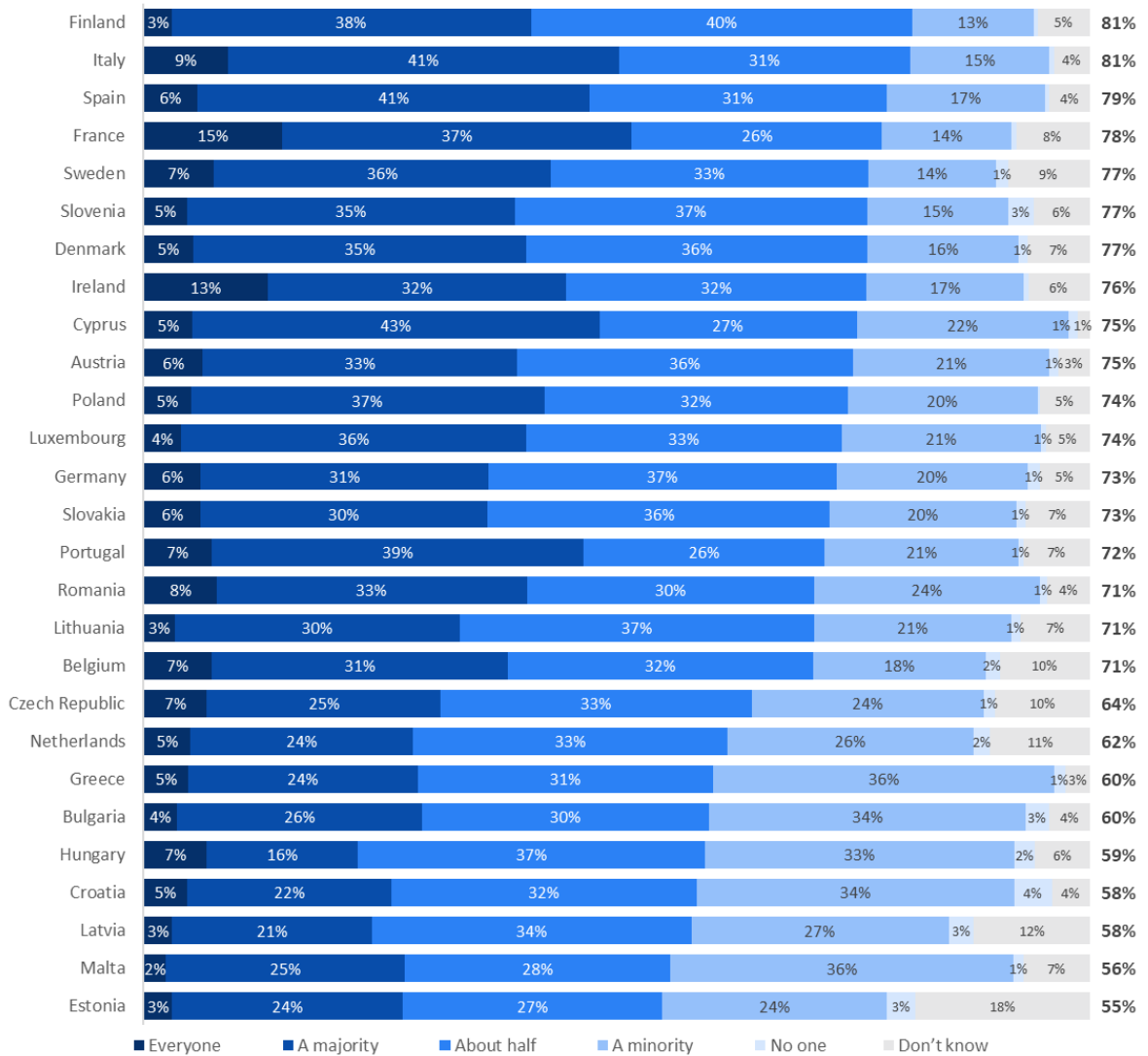
Views vary according to age and gender as well. Younger people and females were more likely to state that at least half of their country's population would be interested. This somewhat reflects the findings of Clark et al.²¹ that females and younger generations are more likely to be concerned about animal welfare. However, that study also found a link to the level of education, whereas the consumer survey did not find any significant differences in responses according to education or occupation. It is unsurprising that consumers stating that animal welfare was important to their peers were also more likely to say that at their peers would be interested in receiving animal welfare information on food packaging (80%; n=4,779, compared to 51%; n=2,267 of those that said it was 'not at all' or only 'slightly' important). Interestingly though, there was no notable difference between the views of vegan/vegetarian respondents and the remainder of the population on this point.

²⁰ E.g. Tomasevic et al. (2021) Attitudes and beliefs of Eastern European meat consumers—a review. IOP Conf. Ser.: Earth Environ. Sci. 854 012098

²¹ Clark, B., Panzone, L. A., Stewart, L. B., Kyriazakis, I., Frewer, L. J. (2016) A Systematic Review of Public Attitudes, Perceptions and Behaviours Towards Production Diseases Associated with Farm Animal Welfare. Journal of Agricultural and Environmental Ethics, 29. Available at: <https://link.springer.com/article/10.1007/s10806-016-9615-x>

Figure 5. If information about the conditions in which animals are farmed and kept was provided to consumers on food packaging in your country, what proportion of the consumer population would be interested?

Note: Figures in bold showing the total proportion of consumers selecting 'About half', 'A majority' or 'Everyone'.



Source: Consumer survey (n=10,089)

On the whole, humane slaughter, animals being adequately fed and outdoor access were the most frequently selected attributes of an animal welfare label. This was found in all countries and across all socio-economic categories, including age, gender, education and occupation. Additionally, among consumers in Austria, Germany and Luxembourg there were also more frequent interest in animals' housing conditions.

There are nevertheless considerable differences in consumers' views on operators' ability to provide high welfare. As observed in 3.1.3, there is no correlation between the welfare criteria consumers want and the extent to which they believe operators will comply with these criteria. This suggests there may be other factors influencing consumer responses to this question. Evidence on the manner consumer trust in food systems varies across different countries appears to match some of the consumer survey's findings. For example, almost half of Finnish consumers (49%; n=405) responded it was *likely* that operators

would comply with the animal welfare conditions they had selected. This reflects the EIT Food Trust report,²² whereby consumer confidence in food integrity is highest in Finland compared to the other 15 Member States surveyed. By contrast, a majority of Croatian respondents responded it was *unlikely* that operators would comply with the animal welfare conditions they had selected (69%; n=277). Similar views were expressed by more than half of respondents in Romania (56%; n=381), Latvia (54%; n=257), Malta (53%; n=276) and Luxembourg (51%; n=333). While Croatia, Latvia, Malta and Luxembourg are not included within the EIT report, it finds that consumers in Romania have a relatively low level of confidence in food integrity compared to other Member States. These findings may have implications for the introduction of a labelling scheme: in countries where consumers have low levels of trust in the food system and/or cynicism about operator compliance, a label may have less impact than elsewhere. This may be partially mitigated by communication about monitoring and control arrangements that would make such a label appear more trustworthy or less untrustworthy.

Additionally, a majority (68%; n=462) of vegans/vegetarians believed at least half of the consumers in their country would shop differently, compared to 60% of non-vegans/vegetarians (60%; n=9,627).

Although there are some relatively minor differences, the majority of consumers across all Member States and socio-demographic categories reported that animal welfare information should be included on all animal-based products. This consensus was greatest among consumers in Spain (92%; n=382), Romania (91%; n=381), Italy (91%; n=385), Malta (90%; n=276) and Portugal (90%; n=370) and lowest in Latvia (69%; n=257). There was also a slightly greater likelihood for females to hold this view (86%; n=4,711) than males (82%; n=4,567). Those identifying themselves as either vegan or vegetarian were more likely to say that animal welfare information should be included on all animal-based products too (91%; n=424) compared to the general population (84%; n=8,882). It is of note that this was the case even for those that considered animal welfare to be of little importance to consumers in their country (79%; n=2,084). This provides strong evidence for a label that offers coverage to food products from all farmed animal species.

To conclude, interest among consumers in receiving information about animal welfare does vary across Member States and socio-demographic categories. These variations do not replicate the differences between Northern and Western Europe on the one hand, Southern and Eastern Europe on the other hand, that are seen on animal welfare awareness. This suggests that there is an appetite for receiving more information that is distributed across the EU rather than concentrated in particular regions.

Younger age groups and females are likely to be most receptive to the introduction of an animal welfare labelling scheme. It is also likely that interest in such a scheme will be greater among consumers in some countries than in others, particularly as sentiment about the ability of operators to comply with animal welfare criteria is also highly variable across Member States. Scepticism about operator compliance could potentially influence support for and use of a labelling scheme, depending on the quality of the controls attached to such a scheme, and the manner they are communicated to consumers.

The majority of consumers across all categories express a preference for a label that is present on all animal-based products. This suggests that a new labelling scheme should be open to food products from all animal species.

²² EIT (2020) The EIT Food Trust Report. Available at: https://www.eitfood.eu/media/news-pdf/EIT_Food_Trust_Report_2020.pdf

3.1.5 To which extent consumers want to choose animal products based on the animal welfare conditions of the animals? Are they ready to pay more for higher animal welfare standards? Is declared interest by consumers consistent with the level of consumption observed? Why? Does the level of consumers' interest vary between products/species? How?

Evidence suggests that EU consumers do wish to choose animal products based on animal welfare conditions, with variations across products and species. However, this declared interest in animal welfare is not necessarily consistent with consumption. Consumers are generally unwilling to pay a premium which is the same or higher as that which exists for organic products. This highlights the importance of effectively positioning any new label on the EU market according to what consumers are willing to pay compared to other labels. The premium which consumers are willing to pay varies across individual Member States and can also be influenced by socio-demographic factors. Finally, willingness to pay increases if consumers are informed about animal farming conditions and if they believe a product is of higher quality. This suggests that information campaigns addressing these factors may strengthen the impacts of a new EU-wide label.

The concern for animal welfare and the demand for relevant information (as documented in the consumer survey and other studies) may not be matched by intentions to purchase such products. Besides, purchasing *intentions* themselves may not be matched by purchasing *decisions*. This concern is reflected in the limitations set by a number of animal welfare scheme owners/managers on new entrants. This is particularly the case for high welfare pig production, and to a certain extent broiler production, in countries such as the Netherlands or Denmark. These restrictions evoke concerns that a greater volume of high welfare meat might not be absorbed by the market. The present section explores the extent of consumers' motivation to purchase such products, commonly known as their 'willingness to pay.' It then goes on to discuss whether intentions are matched by behaviours, why that may be so, and finally explores variations across products and species.

Willingness to pay for animal welfare

A substantial proportion of EU consumers would be willing to choose animal products based on welfare conditions, according to the consumer survey: a small majority (60%; n=10,089) expect that at least half of the consumer population of their country would shop differently if such information was provided on food packaging. A similar 59% stated that they would be willing to pay for products sourced from animal welfare-friendly production systems in the 2016 Eurobarometer.²³ However, the Eurobarometer also illustrates that consumers are generally not willing to pay significantly more for this than for conventional products: of those that said they were willing to pay more (n=16,212), the majority (59%) said they would pay up to 5% more and a further 27% said they would pay up to 10% more. Only 14% said they would pay an extra 11% or more. This shows that animal-welfare friendly products sold at a significantly higher price than competing lower welfare products are less appealing to consumers.

The discrete choice experiment (DCE) carried out within the consumer survey has collected further evidence on this matter. The DCE was based on 12 questions that asked respondents to choose among comparable chicken breast products. Each question included a chicken breast product priced at the average price found in the respondent's country, and an option to choose 'none'. The other two options included varying animal welfare attributes

²³ European Commission (2016) Eurobarometer: Attitudes of Europeans towards Animal Welfare. Available at: <https://europa.eu/eurobarometer/surveys/detail/2096>

and price variations calculated from the average base price. A statistical estimate²⁴ of the responses collected found a tendency for consumers to choose the chicken breast products that had animal welfare-friendly attributes.

The price these consumers agreed to pay was highly variable. In the interest of comparability, this premium was analysed as a percentage of the price consumers would pay for an organic product. This was chosen as a reliable point of comparison, since organic production and labelling being a well-established concept across the EU.

Consumers were rarely willing to pay the same premium for animal welfare as they were for organic products. In some countries, consumers were unwilling to pay any premium at all for certain attributes. For the most popular attribute (whether an animal had outdoor access) willingness to pay was sometimes very high: as much as twice the organic premium on average. However, consumers' willingness to pay the same or a greater premium for animal welfare as they were for organic products in only eight Member States. Consumers in a further nine countries were willing to pay at least a half of the organic premium. For other animal welfare attributes measured, consumers in only four countries showed a willingness to pay more for them than the organic premium (see Annex 5).

In practice, this suggests that the products sold with an animal welfare label would generally need to have a proportionately lower premium than that which exists for organic products, depending on the Member State in which it is being used. Indeed, consumers were more likely to choose an organic product over a product with animal welfare attributes in 18 out of the 26²⁵ Member States included in the DCE. However, improving consumer understanding by promoting the animal welfare criteria used could potentially increase the price premium that consumers would be willing to pay. Also, it is promising that 91% of consumers picked a product with animal welfare attributes at least once in the DCE, suggesting that willingness to pay is strong under the right conditions.

Consumer willingness to pay varies according to socio-demographic factors. Alonso et al.²⁶ concluded that women, young and more educated consumers have the highest willingness to pay for higher welfare products. This was reflected, to some extent, in the DCE whereby females tended to have more interest in nearly all of the animal welfare attributes tested. There were also examples of younger age groups and those with tertiary-level education being more likely to make choices based on some of the tested animal welfare attributes.

Intentions and behaviours

There can be discrepancies between the self-reported willingness to pay of consumers and their actual consumption behaviour. This is widely observed in the literature.²⁷ It may be in part the effect of social desirability bias described in section 3.1.3, which can prompt respondents to provide survey answers that do not correspond with their true intentions or sentiments. However, as this analysis has shown, pricing also has a key role: consumers may express a high level of interest in animal welfare and receiving animal welfare information, but whether or not this affects their purchases is heavily influenced by price.

²⁴ Multinomial mixed logit (MMML) estimate

²⁵ It was not possible to collect comparable data for Luxembourg and it was therefore excluded from the DCE.

²⁶ Alonso et al. (2020) Consumers' Concerns and Perceptions of Farm Animal Welfare. *Animals* (Basel), 10(3). Available at: <https://dx.doi.org/10.3390%2Fani10030385>

²⁷ E.g. Clark, B. et al. (2017), Citizens, consumers and farm animal welfare: A meta-analysis of willingness-to-pay studies, *Food Policy*, 68(C); Lai, Y. & Yue, C. (2020), Consumer Willingness to Pay for Organic and Animal Welfare Product Attributes: Do Experimental Results Align with Market Data?, *Journal of Agricultural and Resource Economics*, 45(3)

This is widely supported in the literature.²⁸ As such, the attraction of cheaper products may often outweigh the animal welfare credentials of others. Although willingness to pay correlates with a higher level of income,²⁹ there is evidence to suggest it is more common to not *want* to pay more than to be *unable* to do so.³⁰ Ultimately, consumers are presented with a social dilemma, having to make a trade-off between short-term individual benefits (lower costs) and negative societal effects (implications for animal welfare).³¹ This creates 'free-rider behaviour': consumers are collectively willing to pay for better animal welfare conditions, but individually they choose not to on the assumption that others will pay for this instead.³²

Studies have suggested that providing information about the conditions in which animals are farmed can significantly increase consumer willingness to pay.³³ Toma et al. similarly find that the more information available to consumers, the greater their perception of personal responsibility to purchase higher animal welfare products.³⁴ These findings are reflected in nutrition labelling studies, which find the effectiveness of labels can be maximised if they are introduced alongside an information campaign.³⁵ Consumers are also more likely to pay for a higher welfare product if they correlate this with being of higher quality. For example, in stores offering higher-quality products, consumers were more likely to report a willingness to pay for high welfare eggs.³⁶ Likewise, Napolitano et al.³⁷ found willingness to pay to correlate with information provision as well as sensory properties, concluding that high welfare products should have good quality to attract consumers. This may explain the differences in the price premium that consumers are willing to pay for animal welfare, compared to the organic premium identified in the DCE: consumers generally choose organic food due to their belief in its higher quality.³⁸ If they do not believe animal welfare credentials offer sensory gains, they are unlikely to pay the same premium for it.

²⁸ E.g. Humble, M. et al. (2021) Internalisation of farm animal welfare in consumers' purchasing decisions: A study of pork fillet at point of purchase using the means-end chain and laddering approach. *Animal Welfare*, 30(3). Available at: <https://doi.org/10.7120/09627286.30.3.013>; Vanhonacker, F. and Verbeke, W. (2013) Public and Consumer Policies for Higher Welfare Food Products: Challenges and Opportunities. Available at: <https://link.springer.com/article/10.1007/s10806-013-9479-2>; Eliciting Yeh, C. H. et al. (2020) Egg Consumer Preferences for Organic Labels and Omega 3 Claims in Italy and Hungary. Available at: <https://doi.org/10.3390/foods9091212>

²⁹ Lagerkvist, C. J. & Hess, S. (2011), A meta-analysis of consumer willingness to pay for farm animal welfare, *European Review of Agricultural Economics*, 38(1). Available at: <https://doi.org/10.1093/erae/jbq043>

³⁰ Brook Lyndhurst (2010) Are labels the answer? Barriers to buying higher animal welfare products. Available at: http://randd.defra.gov.uk/Document.aspx?Document=CI0102Animal_welfare_final_report.pdf

³¹ van Riemsdijk et al. (2017) Marketing Animal-Friendly Products: Addressing the Consumer Social Dilemma with Reinforcement Positioning Strategies. *Animals*, 7(12). Available at: <http://dx.doi.org/10.3390/ani7120098>

³² Uehleke, R. & Hüttel, S. (2018) The free-rider deficit in the demand for farm animal welfare-labelled meat. *European Review of Agricultural Economics*, 46(2). <https://doi.org/10.1093/erae/jby025>

³³ Napolitano, F. et al. (2010) Consumer liking and willingness to pay for high welfare animal-based products. *Trends in Food Science & Technology*, 21(11). Available at: <http://dx.doi.org/10.1016/j.tifs.2010.07.012>

³⁴ Toma, L. et al. (2011) Consumers and animal welfare. A comparison between European Union countries

³⁵ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

³⁶ Andersen, L. M. (2002) Consumer Evaluation of Environmental and Animal Welfare Labelling: An Econometric Analysis on Panel Data Using Mixed Multinomial Logit. Available at: <https://orgprints.org/id/eprint/109/>; Olesen, I. et al. (2010). Eliciting consumers' willingness to pay for organic and welfare-labelled salmon in a non-hypothetical choice experiment. *Livestock Science*, 127. Available at: <https://doi.org/10.1016/j.livsci.2009.10.001>

³⁷ Napolitano, F. et al. (2008) Effect of Information About Animal Welfare on Consumer Willingness to Pay for Yogurt. *Journal of Dairy Science*, 91(3). Available at: <https://www.sciencedirect.com/science/article/pii/S0022030208713468>

³⁸ Kah, J. et al. (2012) Organic food quality: a framework for concept, definition and evaluation from the European perspective. Available at: <https://doi.org/10.1002/jsfa.5640>

Willingness to pay findings suggests potential limits to the number of animals that can be covered by an animal welfare labelling scheme. Where demand is limited or there is extensive competition in a market, there is a necessity for 'production ceilings' to help maintain prices for goods³⁹ (i.e. by ensuring their continued exclusivity). A scheme may restrict membership to a select number of farms that produce enough to meet demand. Beyond this, it may not feel in a position to certify any further farms without decreasing the premium to attract more consumers.

Consumers' willingness to purchase alternative cuts of meat are another noted challenge. As noted in case studies, a labelling scheme may sell only a percentage of a pig's carcass at a premium while the remainder would be sold only at the price of conventional meat, because consumers would not be willing to pay for such cuts at a premium. If a greater proportion of the carcass could be sold as high welfare meat, the price premium for the more desirable cuts of meat could potentially be reduced too, thereby attracting more consumers to purchase the higher welfare products. A similar issue has been observed for broiler meat: chicken breast is preferred by consumers, but slow-growing broilers have a lower percentage of breast meat than conventional broilers. As such, encouraging consumers to opt for other cuts would help to ensure a greater proportion of each carcass is sold as high welfare meat.

Consumer interest between products and species

There is some evidence to suggest that consumer preferences differ between products and species. When asked how often they thought about animal welfare when they were purchasing different products, consumers were most likely to say they did so either 'Always' or 'Most of the time' when purchasing **chicken meat** (43%) and **eggs** (43%). A fair proportion of consumers also mentioned thinking about animal welfare when purchasing products containing either **chicken meat** (32%) or **eggs** (33%) 'Always' or 'Most the time' compared to some other products (n=10,089). This indicates a particularly favourable view among consumers towards the welfare of poultry. Over a third of consumers said that they 'Always' or 'Most of the time' considered animal welfare when purchasing **milk** (35%), **dairy products** (35%) and **pork meat** (34%), but this declined slightly for other poultry meat (31%), beef (30%), meat from farmed fish (27%) and lamb/mutton (24%).

However, Alonso et al.⁴⁰ found that there was less willingness to pay for products from broiler chickens and laying hens compared to dairy and beef cows. Nevertheless, the price premium for organic eggs in Europe was observed by Pawlewicz⁴¹ to exceed that for other organic products (a premium of up to 82%, compared to up to 60% for fish and up to 30% for milk and dairy products). Other aspects likely influence these price premiums, however, such as market fluctuations and production costs. A study for the European Parliament Research Service⁴² more closely reflected the consumer survey results, noting higher concern among consumers for poultry welfare; though it also found 'significantly less' concern for dairy cows.

To conclude, there is a strong interest from EU consumers to choose animal products based on animal welfare conditions. However, declared interest in

³⁹ Ilbery, B. et al. (2005) Product, Process and Place An Examination of Food Marketing and Labelling Schemes in Europe and North America. *European Urban and Regional Studies* 12(2). Available at: <http://dx.doi.org/10.1177/0969776405048499>

⁴⁰ Alonso et al. (2020) Consumers' Concerns and Perceptions of Farm Animal Welfare. *Animals (Basel)*, 10(3). Available at: <https://dx.doi.org/10.3390/2Fani10030385>

⁴¹ Pawlewicz, A. (2020) Change of Price Premiums Trend for Organic Food Products: The Example of the Polish Egg Market. *Agriculture*, 10(2). Available at: <https://doi.org/10.3390/agriculture10020035>

⁴² European Parliament (2021) Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU\(2021\)662643_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU(2021)662643_EN.pdf)

animal welfare by consumers is not always consistent with their purchasing behaviour. There is evidence that consumers are willing to pay a higher price for animal welfare compared to a standard product. However, the majority of consumers are unwilling to pay a premium which is the same or higher as that which exists for organic products. Thus, the products sold with an animal welfare label would generally need to have a proportionately lower premium than that which exists for organic products, depending on the Member State in which it is being used.

Willingness to pay could potentially be maximised through the application of an information campaign alongside the introduction of a new label: willingness to pay increases if consumers are informed about animal farming conditions and if they believe a product is of higher quality.

3.1.6 For consumers interested in animal welfare, what are the key features of a good animal welfare scheme (private vs public, species concerned, technical characteristics, controls, etc.)?

Considering the technical character of the matter, the characteristics of a good animal welfare scheme as drawn from the consumer survey can be refined further based on academic articles. While consumers express views on whether a scheme should be run privately or publicly, and what its ideal scope would be, the literature provides the bulk of insights on what system of controls may be most appropriately designed for an animal welfare labelling scheme.

Labelling schemes may be run **privately or publicly**. Publicly run animal welfare labels are rare. Instead, most animal welfare labels found in the EU are run by private organisations. In some cases, a scheme may be managed by a mix of private actors and public ones. The endorsement, recognition, or certification of a scheme by public authorities can help link a private labelling scheme with public governance. This can help ensure that private standards are aligned with public rules, and that controls are robust enough⁴³. In some cases, private animal welfare schemes have been accused of “welfare washing”,⁴⁴ for portraying an image of high welfare to consumers even though they only marginally exceed an established legal baseline.⁴⁵ A recent study⁴⁶ evaluating four private animal welfare quality assurance schemes similarly found a lack of transparency surrounding their claims and concluded that there was a need for regulatory oversight to ensure their validity for consumers. **This suggests that a good labelling scheme, even if run privately would usefully incorporate a level of public oversight.**

The role of public organisations or private ones in running schemes matters also as a signal to consumers. While consumers may not be aware that certain private schemes are run or endorsed by public authorities, making such a role explicit can influence how **trusted** the label is.

⁴³ McAllister L (2014) Harnessing Private Regulation, 3 Mich. J. Env'tl. & admin. L. 291

⁴⁴ Farm Forward (2020) The Dirt on Humanewashing- a farm forward report on consumer deception in animal welfare certification.

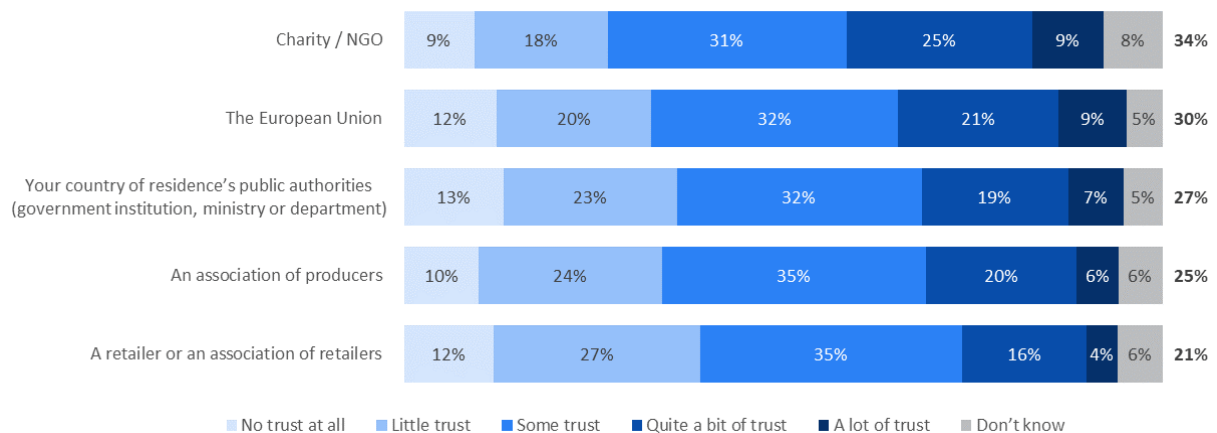
⁴⁵ E.g. Compassion in World Farming (2012) 'RED TRACTOR' RANKED LOWEST ON ANIMAL WELFARE. [Online] available at: <https://www.ciwf.org.uk/news/2012/05/red-tractor-ranked-lowest-on-animal-welfare>; Clarke, P. (2021) Red Tractor – the pros and cons of farm assurance schemes. Farmers Weekly. [Online] available at: <https://www.fwi.co.uk/news/red-tractor-the-pros-and-cons-of-farm-assurance-schemes>; Amann, S. (2007) How the meat industry cheats on their goods. Available at: <https://www.spiegel.de/wirtschaft/verbraucherschutz-wie-die-fleischindustrie-ihre-waren-schoenmogelt-a-523031.html>

⁴⁶ More, S. J. et al. (2021) An evaluation of four private animal health and welfare standards and associated quality assurance programmes for dairy cow production.

On the whole, the consumer survey suggests that there is a stronger basis of distrust or absence of trust than there is one of high or very high trust: a larger proportion stated that they had either 'no trust at all' or only 'little' trust in both public and private institutions than those that had 'a lot' or 'quite a bit' of trust in them. The survey results also show that there is greater trust in NGOs than other organisations to monitor adherents to an animal welfare label, as shown in Figure 6. On average, there is also greater trust in the EU and public authorities than private organisations, except for NGOs.

These results vary greatly from Member State to Member State, in a manner consistent with the variations highlighted in the literature. The latter frequently finds higher levels of trust in regulatory systems and public institutions in Scandinavian countries than in other European countries. This trend is visible in the consumer survey too, where some of the highest levels of trust in national public authorities to oversee compliance with an animal welfare label's standards are seen in Denmark (50%; n=400) Finland (36%; n=405) and Sweden (33%; n=406). Other Member States where consumers have similarly high levels of trust in their public authorities include Ireland (41%; n=403), Portugal (40%; n=400) and France (39%; n=401). However, it was significantly lower in several Eastern European countries such as Bulgaria (12%; n=400), Romania (13%; n=402) and Slovakia (13%; n=401). Trust in national public authorities was also particularly low in Croatia (10%; n=301). To some extent, these findings reflect those of Nessel⁴⁷, who found that market trust among consumers was weaker in Eastern and Southern European countries. Market trust was found to correlate with the level of enforcement of consumer law in a country. This in turn affected consumer levels of trust in their national public authorities which offers a possible explanation for the survey results.

Figure 6. How much trust do you have in the following organisations to verify that food producers who use an animal welfare label are indeed keeping and treating animals well? – Total that stated 'Quite a bit of trust' and 'A lot of trust' in in bold text.



Source: Consumer survey (n=10,089)

Trust in other types of institutions also varied considerably across Member States. Trends in trust in the EU were in line with the results of the 2021 Eurobarometer⁴⁸. For example, in both cases, Portuguese residents expressed the highest levels of trust in the EU – in the consumer survey, half (50%; n=400) said they had 'quite a bit' or 'a lot' of trust in the EU

⁴⁷ Nessel, S. (2021) Political structures and trust in markets: A comparative examination of consumer trust in 28 EU member states and the effects of consumer policy on trust. Journal of Sociology.

⁴⁸ European Commission (2021) Standard Eurobarometer 95 – Spring 2021. Available at: <https://europa.eu/eurobarometer/surveys/detail/2532>

and 73% (n=1,000) in the Eurobarometer stated that they 'tend to trust' the EU. Other countries with particularly strong levels of trust in the EU included Malta (48%; n=300 in the consumer survey and 62%; n=502 in the Eurobarometer) and Spain (46%; n=401 in the consumer survey and 54%; n=1,006 in the Eurobarometer). It is notable that, in countries where trust in national authorities is low (such as Bulgaria, Croatia, Romania or Slovenia – as seen in the paragraph above), trust in the EU as measured in the consumer survey is comparatively higher.

This suggests, first, that consumer trust in an organisation could be extended to their trust in an organisation's ability to monitor a label. There is further evidence for this illustrated by the differences in consumer trust in producers and retailers. While both are private sector operators, farmers tend to be viewed more favourably by consumers than retailers. In the consumer survey, 39% stated they had 'no trust at all' or only 'little' trust in retailers, compared to 34% for producers. This difference may be small, but it reflects the findings of the EIT Food Trust report,⁴⁹ where the level of trust consumers had in farmers typically exceeded the level of trust they had in retailers. Second, it also shows that a role for the EU in animal welfare labelling is likely to contribute to making such a label more trustworthy in the eyes of consumers, in those countries where trust in national authorities is low.

Consumer preferences in terms of the **species** coverage of an animal welfare labelling are broad. Indeed, those who declared an interest in animal welfare would prefer a labelling scheme that offers coverage to all animal species: as described in section 3.1.3., this corresponds to a large majority of respondents (84%; n=9,306). The preferences of the minority (16%) are themselves diverse rather than homogeneous. While policy discussions on the introduction of an animal welfare label in the EU often evoke which species to focus on in priority, or as a first step (e.g. a label for broilers has been a policy goal for years at EU level), the consumer survey suggests that **an overwhelming majority is not considering priorities or exemptions** for certain species. Such considerations (which species to include) are political, practical, legal or economic in nature: they are not anchored in consumer needs or expectations.

When it comes to the **technical characteristics** of an animal welfare labelling scheme, which would typically correspond to the technical scope and standards, consumers can express preferences up to a certain point only. Given the generally low level of consumer awareness on the topic of animal farming (as discussed in section 3.1.1), one could argue that consumers may be poorly placed to express preferences on the substantive rules that an animal welfare labelling should encompass. Such substantive rules may combine consideration for what is needed (which is species-dependent to a large extent), what is auditable/verifiable, and what can be shouldered by FBOs. Such a discussion can also reflect on what the current state of play is, to adapt technical characteristics to the realities on the ground. **Given these dimensions and the technical nature of the discussion, what consumer views can provide is a guide for reconciling technical choices with consumer expectations.**

Section 3.1.3 describes what areas consumers expressed an interest in, with the most commonly selected features being humane slaughter (40%; n=9,306), adequate feeding (40%) and outdoor access (35%). Outdoor access is frequently observed as being a significant welfare concern for consumers.⁵⁰ As also described in section 3.1.3, consumer interests may also be influenced by misconceptions about farming practices and their

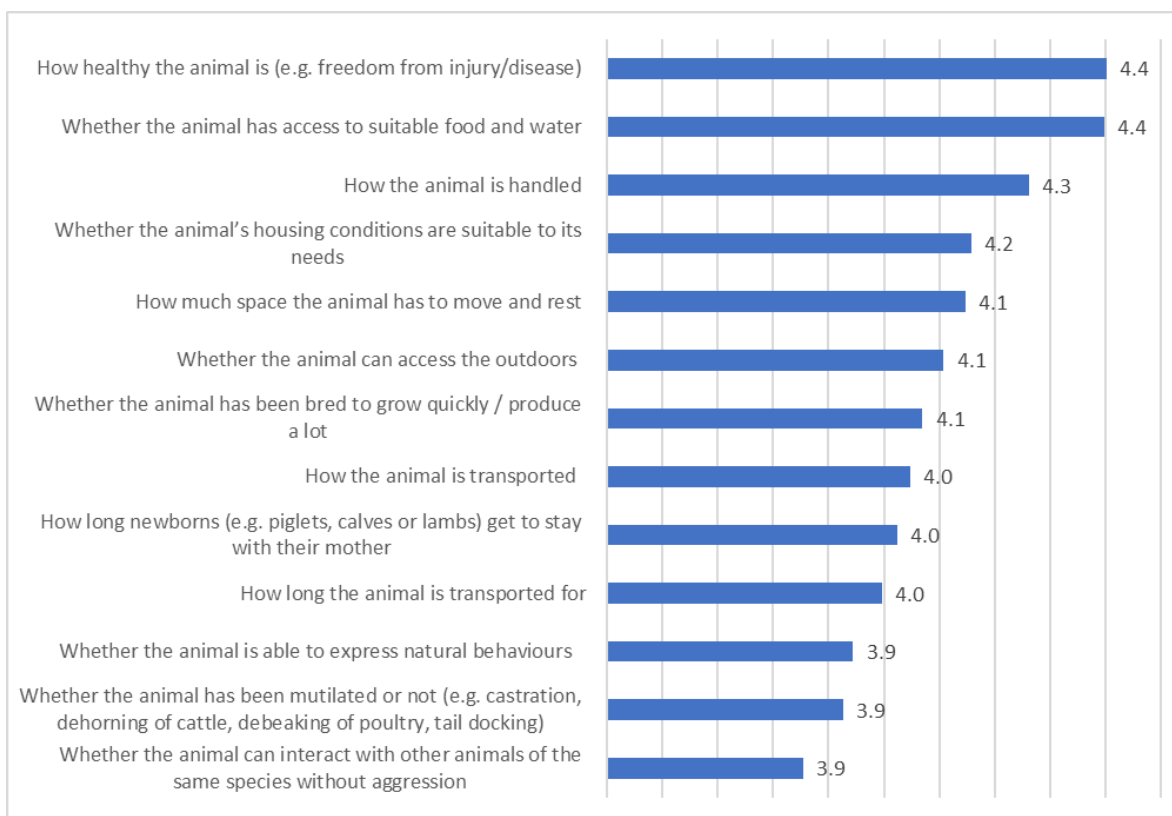
⁴⁹ EIT (2020) The EIT Food Trust Report. Available at: https://www.eitfood.eu/media/news-pdf/EIT_Food_Trust_Report_2020.pdf

⁵⁰ Janssen et al. (2016) Labels for Animal Husbandry Systems Meet Consumer Preferences: Results from a Meta-analysis of Consumer Studies. *Journal of Agricultural and Environmental Ethics*, 29(6). Available at: <https://doi.org/10.1007/s10806-016-9647-2>

welfare implications. The welfare criteria that they are interested in may also depend on the species to which the criteria apply.⁵¹

In addition to being asked about what they would like to see on food packaging, consumers were asked to rate the importance of different animal welfare attributes on a scale from 1 to 5, where 1 was 'Not at all' important and 5 was 'Very' important. The average scores for the attributes were all within +/- 1 of one another, ranging from 4.4. (for access to food and water) to 3.6 (whether the animal had been bred to grow quickly / produce a lot), as shown in Figure 7.

Figure 7. In your opinion, how important are the following factors when thinking about what constitutes good farm animal welfare? Please answer each factor on a scale of 1 to 5, where 1 is not at all important and 5 is very important.



Source: Consumer survey (n=10,089)

Note: Figures are the rounded average scores for all respondents.

These results provide limited indications of consumers' preferences on the substance of what a labelling scheme's rules should focus on. At best, it suggests that a holistic approach towards animal welfare would be well-received, regardless of the unique welfare criteria that consumers may have the most interest in or consider significant for a particular species. This is further supported by the findings of sections 3.1.3 and 3.1.5, whereby most consumers (84%; n=9,306) state that they would like to see information about animal welfare on all animal-based products, which implies a very broad level of interest.

Any labelling scheme requires mechanisms for **controlling** that adherents comply with the standards. Given the technicality of the issue of the controls, this report did not seek

⁵¹ Alonso et al. (2020) Consumers' Concerns and Perceptions of Farm Animal Welfare. *Animals (Basel)*, 10(3). Available at: <https://dx.doi.org/10.3390%2Fani10030385>

consumer views on this matter. Instead, insights have been drawn from the academic literature.

The challenges here are somewhat similar to those met by national competent authorities having to control compliance with legal obligations. Indeed, scholars have noted that the themes explored traditionally in research on public inspections (resource constraints, training level, proximity with those inspected and possible capture, effects of announced vs unannounced visits) are relevant to audits within supply chains, including those associated with labelling schemes.⁵² For instance, regarding the use of unannounced inspections as means of strengthening controls, a study⁵³ on the Italian organic food sector has shown that the likelihood of sanctions was greater if the control body made higher numbers of unannounced inspections. There were similar findings in a study of organic farming in Germany.⁵⁴ For public authorities to carry out audits can be a challenge due to resource constraints, which are 'notoriously limited' in numerous Member States.⁵⁵ Therefore, it may not be possible for Member States to resource a large-scale auditing mechanism for an animal welfare labelling scheme. Instead, a private auditing mechanism with some level of public oversight might be more feasible. However, private third-party auditing mechanisms are peculiar in that the audit is generally paid for by the auditee, creating a conflict of interest absent from most public inspection mechanisms. Hence, the literature has explored the conditions in which public authorities might rely on private third party audits, to achieve the benefits of more visits (thanks to privately paid audits) while retaining reliability (and therefore mitigating conflicts of interest in the auditor-auditee relationship). Such solutions include: preventing auditors from being paid directly or selected by the auditee; preventing auditors from selling other services to the auditee; imposing term limits to auditor-auditee relationships; imposing auditor training; imposing transparency in audit findings; making auditors liable to ensure their independence.⁵⁶ These findings suggest a set of conditions that could inspire a robust controls system for an EU animal welfare labelling system.

To conclude, consumer views on what would make a good animal welfare scheme are limited by their low awareness of the conditions in which farmed animals are kept and treated, and of the manner labelling schemes (or assurance schemes more broadly) can be structured and operate. The general structure of ownership and management of such a labelling scheme, whether private or public, can influence the extent to which it would be trusted by consumers. In this regard, consumers tend to trust NGOs and EU public authorities more than national public authorities and other private actors. Trust in national public authorities is particularly low in some Member States. As a result, intervention at EU level could provide added value, by making a labelling scheme more trustworthy, particularly in those Member States where trust in national authorities is low than if it was established by national authorities alone.

Consumer views on the scope of an animal welfare label are broad. There is only limited evidence on the dimensions of welfare consumers would want to see

⁵² Short JL, Toffel MW, Hugill AR (2016) Monitoring global supply chains. *Strategic Management Journal* 37(9), 1878-1897; Short JL, Toffel MW (2016) The integrity of private third-party compliance monitoring. *Administrative and Regulatory Law News* 42(1), 22.

⁵³ Zezza, A. et al. (2020) Supervising third-party control bodies for certification: The case of organic farming in Italy. *Agric. Food Econ.* 8, 1-14

⁵⁴ Zorn, A. et al. (2012) Supervising a system of approved private control bodies for certification: The case of organic farming in Germany. *Food Control*, 25(2). Available at: <https://doi.org/10.1016/j.foodcont.2011.11.013>

⁵⁵ European Parliament (2021) Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU\(2021\)662643_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU(2021)662643_EN.pdf)

⁵⁶ Short JL, Toffel MW (2016) The integrity of private third-party compliance monitoring. *Administrative and Regulatory Law News* 42(1), 22.

prioritised. As for the necessary system of controls that would underpin an animal welfare labelling scheme, one needs to consider the resource constraints of public authorities, as well as the pitfalls of relying on a purely private third-party auditing system. A mixed approach, whereby many conditions are established on third party auditors to ensure their independence, might provide a third way that combines extensive coverage with reliability.

3.1.7 For consumers interested in animal welfare, are they also interested to receive information on other sustainability issues? If yes, which ones?

EU consumers are interested in receiving information on other sustainability issues in addition to animal welfare. They have particularly strong concerns about the use of antibiotics, but also fair pay for producers, impact on biodiversity and carbon footprint. This evokes a broader interest in sustainability labelling among EU consumers that echoes current projects for sustainability labelling at EU level.

The UN and EU definition of sustainability is 'development that meets the needs of current generations without compromising the ability of future generations to meet theirs'. It spans environmental, social, and economic issues which are encompassed within 17 UN Sustainable Development Goals (SDGs) (see Figure 8).⁵⁷ The SDGs are used as a guide for the development of EU policy. The European Green Deal was launched in 2019 and formed the basis for cross-cutting policy initiatives to support the aim to make the EU carbon neutral by 2050. The Green Deal has been further developed into the Farm to Fork Strategy and the Biodiversity Strategy for 2030, both of which include sustainability objectives relating to agriculture and food production.

Figure 8. UN's Sustainable Development Goals



Source: United Nations.

While the Farm to Fork Strategy has set the stage for the current reflections on animal welfare labelling at EU level, it has also brought in the topic of a front of pack nutrition label

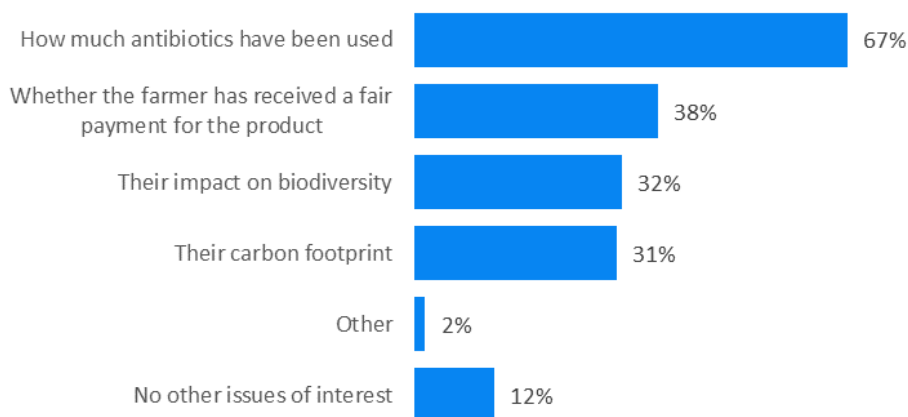
⁵⁷ European Commission (2019) A Sustainable Europe by 2030. Available at: https://ec.europa.eu/info/publications/reflection-paper-towards-sustainable-europe-2030_en

and a potential sustainability label at EU level. The extent to which these initiatives might interact is therefore an issue for policymakers.

The consumer survey asked respondents if there were any other issues they would like to see information about on products of animal origin. This was based on some of the sustainability issues most relevant to animal production.⁵⁸ Most (88%; n=10,089) chose at least one other sustainability issue in which they were interested. Use of antibiotics was a particular concern and a majority (67%) stated that they wanted information on this topic. However, there was also fair demand for other information on areas such as fair payment for farmers, biodiversity, and carbon footprint (see Figure 9). There were differences in these results across Member States. For example, consumers in Romania (85%; n=402), Bulgaria (80%; n=400) and Greece (77%; n=400) had a particularly strong interest in use of antibiotics, while over half of consumers in countries such as Luxembourg (68%; n=351), Spain (53%; n=401) and Austria (51%; n=400) were interested in whether or not farmers had received a fair payment. These differences may reflect the extent to which such issues have been portrayed at national level.

It is notable that, for products of animal origin, a third of respondents at least expressed interest in sustainability issues pertaining to all dimensions of sustainability: economic (fair pay), environment (biodiversity and carbon footprint) and social (health).

Figure 9. Are there any other issues that you would like to see information about on products from animal origin?



Source: Consumer survey (n=10,089)

Consumers' interest in sustainability leads one to consider whether sustainability elements may be incorporated with animal welfare elements into an integrative label, or rather whether those may be kept separate instead. The evidence suggests that multiple competing labelling schemes may translate into information overload that affects consumers' ability to interpret their meaning and make comparisons across products.⁵⁹ Consumers may even ignore the information altogether.⁶⁰ Encompassing various criteria within one labelling scheme could reduce the number of labels consumers are exposed to

⁵⁸ The sustainability issues mentioned were: carbon footprint, impact on biodiversity, antibiotic use and fair pay for farmers. There was also an 'Other (please specify)' option to allow consumers to add other sustainability criteria that they were interested in.

⁵⁹ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at:

https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

⁶⁰ Messer, K. D. et al. (2017) Labeling Food Processes: The Good, the Bad and the Ugly. Applied Economic Perspectives and Policy, 39(3), 407-427. Available at: <https://doi.org/10.1093/aep/pxx028>

on a single product, if legislation was to impose their use instead of that of any other label. However, complex topics such as sustainability and animal welfare may end up being oversimplified to fit the parameters of a single label. This creates a challenge not only in terms of generating a robust measure of either but also in communicating to consumers. For example, one study found that consumers had a low level of understanding of the concept of sustainability, but could better interpret some sustainability labels due to their being 'self-explanatory' (e.g. Carbon Footprint).⁶¹ It is unlikely that a label that combines multiple criteria would fall into this category. Additionally, there will be products where the relationships between animal welfare and wider sustainability criteria are in tension. Addressing this in the design of an integrated scheme could prove problematic. The successful experience of organic labels, positively associated with human health, the environment and animal welfare by consumers provides an example of a path where such tensions appear to have been overcome within a particular segment of the market.⁶²

EU consumers are interested in receiving information on other sustainability issues in addition to animal welfare. The use of antibiotics is a particularly strong concern, although there is significant interest also for fair pay, biodiversity and carbon footprint. The multiple interests of consumers, the feasibility of an integrative label, and the risks of information overload if consumers were subject to too many pieces of information on the front of packs point to difficult trade-offs, that could not be investigated in more detail in the context of the present study.

3.1.8 For all consumers, what type of labelling transmits them more easily the intended message (scale type, logo type, sentence type, code type)?

Labels that use colour, scale and are of sufficient size are most effective in transmitting messaging to consumers. There is insufficient evidence to indicate whether a descriptive or an evaluative label is preferred by consumers in the context of animal welfare. However, evidence from other contexts strongly suggests that an evaluative scheme performs better.

In general, identifying the types of labels that are most effective in influencing consumer choice is not a straightforward task. Across both sustainability and nutrition, there are a large number of very different labelling schemes. This makes it difficult to study and compare them all. The reasoning behind developments in their appearance over time is not necessarily recorded either.⁶³ It is therefore unsurprising that literature to inform an assessment about what size a label should be to best attract consumer interest is somewhat limited. Hawley et al.⁶⁴ specifically called for more studies on the sizing of labels and their text, and for further research to determine an optimal label size. Nevertheless, there is evidence to suggest that labels that are too small can be problematic for some consumers – particularly those that need reading glasses. If they struggle to read the text on a label, they are unable to use it to inform their decisions.⁶⁵ This is supported by four studies

⁶¹ Grunert, K. G. (2014) Sustainability labels on food products: Consumer motivation, understanding and use. *Food Policy*, 44. Available at: <https://doi.org/10.1016/j.foodpol.2013.12.001>

⁶² <https://www.eufic.org/en/food-production/article/organic-food-and-farming-scientific-facts-and-consumer-perceptions>

⁶³ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

⁶⁴ Hawley, K. L. et al. (2013) The science on front-of-package food labels. *Public Health Nutrition*, 16(3). Available at: <https://doi.org/10.1017/S1368980012000754>

⁶⁵ Malam, S. et al. (2009) Comprehension and use of UK nutrition signpost labelling schemes. Available at: <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.610.1749&rep=rep1&type=pdf>

identified in the JRC evidence review on front-of-pack (FOP) nutrition labelling schemes, which found that larger labels were more likely to capture attention.⁶⁶

It is evident from the mapping of animal welfare labelling schemes that this is a consideration for some schemes. Several included requirements for how the label should be formatted on the packaging of eligible products, including minimum sizing (see Table 9). For all schemes where this information was found, the minimum size of a printed logo on product packaging was 1cm or above unless the packaging surface area was less than a prescribed size. Most also had requirements relating to the colours used and some had requirements or recommendations around the amount of clear space which should surround the label, likely to better highlight its presence to consumers.

Table 9. Animal welfare labelling schemes with label sizing requirements

Labelling scheme	Sizing requirements for product packaging	Other formatting requirements
Agriculture Biologique (France)	Minimum size 2cm diagonally	Should be in a specific shade of green and appear on white background wherever possible
Anbefalet af Dyrenes Beskyttelse (Denmark)	Minimum size 3cm diagonally	Three specific colours mandated for use
Best Aquaculture Practices (International)	Minimum width 1cm	Advised amount of clear space, specific colour requirement, examples of incorrect logo use
Beter Leven (Netherlands)	Minimum width 2cm, or 1.5cm where product packaging is smaller	Either coloured or black and white version of the logo must be used; logo must have the correct number of stars for the product; requirements relating to other terminology & a recommendation for inclusion of a short explanation in addition to the logo
Board Bia & Origin Green (Ireland)	Minimum 3cm high or at least 5% of the total area where product packaging is smaller	Four colours mandated for use, logo must be a reproduction of the original artwork and have clear space around it
European Organic Certification (EU)	Minimum size 1.35cm by 0.9cm, or 0.9cm by 0.6cm where product packaging is smaller	The white leaf on a green background should be used wherever possible
KRAV Certified (Sweden)	Minimum size 1.2cm, or 1.8cm for labels with supplementary text. Minimum 0.9cm where product packaging is smaller.	Must be as prominent as the EU organic logo, requirement for surrounding clear space and the text 'KRAV' must always be in capital letters

There is evidence from the world of nutrition labelling to suggest that **colour** can influence consumer perceptions of a label or logo and the information it contains. The JRC evidence review⁶⁷ found that use of colour helped to increase attention to labelling schemes,

⁶⁶ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

⁶⁷ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

providing the colours used contrasted with the colour of the food product packaging. **Colour-coding of scales** was found to be particularly effective in both improving consumer understanding and influencing their subsequent purchases, with evidence to suggest they supported consumers to make more nutritious food choices. Colour-coded nutrition labelling schemes typically apply 'traffic-light' style colours which correspond with a 'best' to 'worst' scale, chosen for being universally recognised by consumers. However, Muller and Ruffieux⁶⁸ did note that systems, where more than just two colours (e.g. red and green) were used, could still generate confusion. This is supported by De la Cruz-Góngora et al.,⁶⁹ who found consumers did not entirely understand the amber colour when used alongside green and red and is similarly highlighted in the JRC evidence review. More generally, the literature also finds that consumers are more likely to avoid products containing red labels rather than actively choose those with green labels.⁷⁰

Nevertheless, when interpreting these findings with consideration for existing animal welfare labelling schemes, there is an evident trend for the use of green colouring. Of the 51 schemes mapped, almost half (25) used a primarily green colour scheme (see Figure 10). Some of the multi-tier schemes also used a colour scheme with similarities to the traffic light coding seen in various nutritional labels. For example, both Haltungsform and Etiquette Bien-être Animal use red to indicate their lowest tiers and green for their highest tiers.

Figure 10. Examples of animal welfare labelling scheme logos using green colour schemes



Source: Bedre Dyrevelfaerd; Bioland; Bord Bia; Compromiso Bienestar Animal PAWS; Global GAP; IKB Varken; Weidemilk; KRAV.

In general, labelling schemes typically present information in either an **evaluative** (i.e. an assessment of the product by the scheme) or a **descriptive** way (i.e. factual information presented neutrally, leaving to the consumer the task of evaluating the product based on the information provided). In some schemes, there is an element of crossover. For example, organic logos are primarily descriptive in the way they are presented on food packaging, as they chiefly indicate that a product has been produced according to organic production standards which are legally defined in the EU.⁷¹ However, while an average consumer may have a general understanding that organic production is associated with higher standards

⁶⁸ Muller, L. & Ruffieux, B. (2020), What Makes a Front-of-Pack Nutritional Labelling System Effective: The Impact of Key Design Components on Food Purchases. Available at: <https://www.mdpi.com/2072-6643/12/9/2870/htm>

⁶⁹ De la Cruz-Góngora, V. (2017) Understanding and acceptability by Hispanic consumers of four front-of-pack food labels. International Journal of Behavioral Nutrition and Physical Activity, 14(28). Available at: <https://doi.org/10.1186/s12966-017-0482-2>

⁷⁰ Scarborough, P. et al. (2015) Reds are more important than greens: How UK supermarket shoppers use the different information on a traffic light nutrition label in a choice experiment. International Journal of Behavioral Nutrition and Physical Activity, 12(151). Available at: <https://doi.org/10.1186/s12966-015-0319-9>

⁷¹ EU implementing regulation 2020/464 on rules for the production of organic products, for the retroactive recognition of periods for conversion to organic and for information to be provided by EU countries

of animal welfare, it is unlikely that they will have a comprehensive understanding of what this looks like in practice. As such, the organic label is at least in part evaluative, as it assesses animal welfare on the consumer's behalf. An example of a purely descriptive scheme is the EU mandatory method-of-production label for table eggs. Evaluative labels can themselves be structured in different ways: they may endorse a particular model of animal welfare (typically single tier labels) or they can use scales to indicate different levels of animal welfare (seen in multi-tier labels).

The literature that explores these alternative ways of presenting animal welfare information to consumers is limited. However, it has been explored for nutrition labelling, where **evaluative labels were seen to be more effective in helping consumers to compare products and choose those that were healthier.**⁷² Despite this, it is still notable that the method-of-production label for table eggs is likely to have contributed to the decline in consumption of eggs from caged hens in the EU.⁷³ This could be linked to an implicit evaluation (reflected by a code) embedded in the ranking of methods of production (organic farming – code 0, better than free-range code 1, better than barn code 2, better than cages code 3).

Another consideration in developing label messaging for food packaging is whether to frame the information in a way that highlights the *benefits* of an action (e.g. the animal welfare benefits of buying a product), or one that highlights the negative *consequences* of *not* taking action (e.g. informing consumers about the negative impacts on animal welfare if they do not buy consumer animal welfare friendly products). In the context of nutrition labelling, it was found that both types of framing allowed consumers to distinguish between healthier and less healthy choices but no angle was better than the other.⁷⁴ Regardless, in the context of animal welfare labelling, it is typically more difficult to refer to the negative impacts on animal welfare due to the sensitivity of the subject. This is noted by Sørensen and Schrader,⁷⁵ who conclude that the use of animal-based indicators⁷⁶ is preferable to those that are resource-based⁷⁷ but they are more difficult to communicate to consumers because they are primarily negative regardless of how they are framed (e.g. mortality rates, disease prevalence). While negative labels can be found in other domains (e.g. warning labels for nutrition, or health hazards), no such negative labels have been identified that focused on animal welfare. Instead, many animal welfare labels are positive, 'endorsement' labels.

A third option is to use graded labels, which provide a characterisation of all possible levels on a scale, thus accounting for both positives and negatives, with minimal messaging. Recent comparative research has shown that **graded labels perform better than either positive (endorsement) or negative (warning) labels, in terms of driving**

⁷² European Commission (2020) Report from the Commission to the European Parliament and the Council regarding the use of additional forms of expression and presentation of the nutrition declaration. Available at: https://ec.europa.eu/food/system/files/2020-05/labelling-nutrition_fop-report-2020-207_en.pdf

⁷³ Gauton, J. et al. (2021) Review: Production factors affecting the quality of chicken table eggs and egg products in Europe. *Animal*, 100425. Available at: <https://doi.org/10.1016/j.animal.2021.100425>

⁷⁴ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

⁷⁵ Sørensen, T.J., Schrader, L. (2019) Labelling as a Tool for Improving Animal Welfare—The Pig Case. *Agriculture*, 9, 123.

⁷⁶ Measures that take into account the effect it will have on an animal, by assessing the animals' response to these. It can be something that directly impacts the animal or indirectly and includes the use of animal records (<https://efsa.onlinelibrary.wiley.com/doi/pdf/10.2903/j.efsa.2012.2767>)

⁷⁷ Indicators to impact the life on an animal by changing external factors that can affect an animal's welfare, such as the physical environment or the animal's resources available. The measure of its success is based on the factor itself, under the assumption that it can be linked to changes in the animals' welfare. (<https://efsa.onlinelibrary.wiley.com/doi/pdf/10.2903/j.efsa.2012.2767>)

consumer choices towards the better options.⁷⁸ Graded labels are being promoted in a number of Member States, either nutrition labels (Nutri-Score), sustainability labels (Eco-score) or animal welfare labels (Etiquette Bien-Etre Animal, Haltungsform, Bedre Dyrevelfærd).

Food packaging labels should be of sufficient size to attract the attention of consumers. There are benefits to using colour to better support consumer understanding and in turn, influence their purchases. There is insufficient evidence to indicate whether a descriptive or an evaluative label is most effective in the context of animal welfare labelling schemes. However, the evidence on nutrition labelling strongly suggests that evaluative schemes perform better. Where evaluative labels are used, framing messaging positively is likely to be less problematic, but this could be challenging if animal-based criteria are used to measure welfare. As an alternative, graded labels that encompass all products whether they perform well or not and score them on a common scale have been found to be better at driving consumers towards choosing the best options.

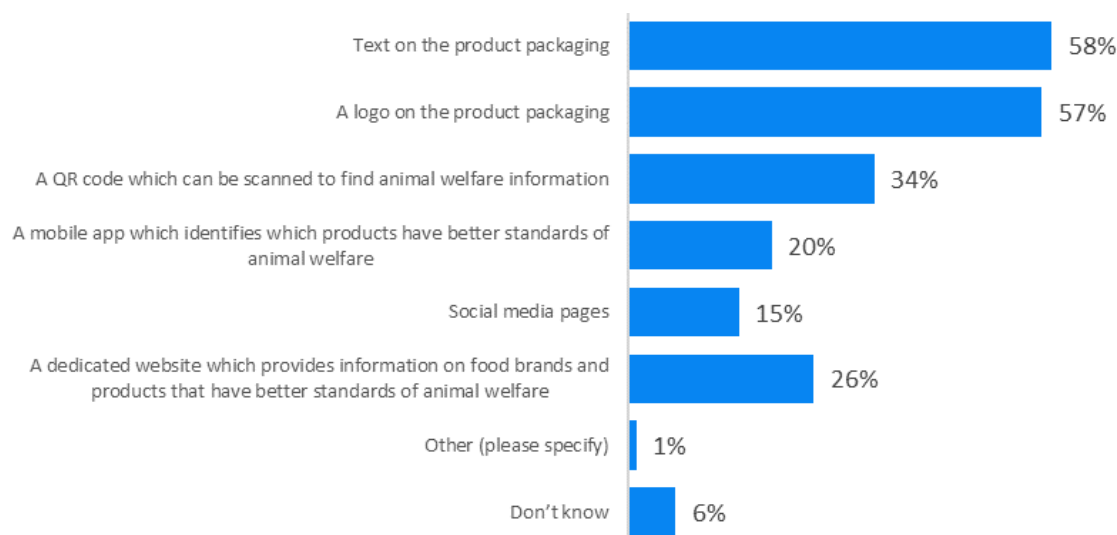
3.1.9 For consumers interested in animal welfare, what are the preferred ways to receive information on animal welfare when they buy a product (reserved terms, logo, QR code, mobile app, social media, etc.)?

EU consumers would prefer to receive information about animal welfare when they buy a product directly on the product packaging; either in the form of text or a logo, or both. Younger consumers tended to be more open to receiving information electronically, such as via an app or a QR code.

Results of the consumer survey suggest that textual or logo labelling is the preferred way for the majority of EU consumers to receive information about animal welfare for the products they usually purchase (see Figure 11). This is preferred to alternative channels of information (QR code, mobile app, etc.). In total, most (79%; n=10,089) consumer survey respondents had selected 'Text on the product packaging' and/or 'A logo on the product packaging' when asked (58% and 57% selecting each option respectively). When excluding respondents who expressed no interest in receiving information about the conditions in which animals were farmed (i.e. those selecting 'none of these' when asked about what information they would be interested to see on food packaging), the proportion that expressed a preference for text and/or a logo increased to 81% (n=9,494). By contrast, a minority of respondents selected other options for receiving information about animal welfare.

⁷⁸ Dessart FJ et al. (2021) Comparing the impact of positive, negative, and graded sustainability labels on purchase decisions. Science for Policy Briefs, Joint Research Centre.

Figure 11. What would be the best way to provide you with information about animal welfare for the products you usually buy?



Source: Consumer survey (n=10,089)

There were no notable differences between Member States. The majority of consumers in each Member State had indicated a preference to receive information via product packaging (text and/or a logo), ranging from 88% of consumers in Bulgaria (n=400) to 70% in the Netherlands (n=400). The difference in preferences for text compared to a logo was fairly mixed across Member States. Textual information on product packaging was the most frequently selected format by respondents in 16 out of 27 Member State. In nine of the 11 remaining Member States (Austria, Belgium, Denmark, Estonia, France, Ireland, Luxembourg, Malta and Portugal), respondents had a slight preference for a logo. In Greece, there was an even split in the proportion of respondents choosing these options (60% for both; n=400). In Cyprus, by contrast, a similar proportion of consumers expressed a preference for a QR code (61%) or a logo on the product packaging (59%), while only around 43% were interested in the text on the product packaging (n=309).

The demand for receiving information as text on the product packaging was in line with a previous European Commission study on information to consumers on the stunning of animals: those interested in receiving information on stunning were more likely to express a preference for a textual description as opposed to a numeric code⁷⁹. A preference for information on the food product packaging itself was also seen in a study among consumers in Sweden, Italy and the UK: over 90% of those surveyed in each country reported using product labels as the main source of information about animal welfare. By comparison, only around a third (32% in Sweden and 36% in Italy) reported using the internet or a website to obtain information about animal welfare⁸⁰.

The preference for information on food product packaging among consumers is reflective of the types of animal welfare labelling schemes that currently exist in the EU. Of the 51

⁷⁹ European Commission (2015) Study on information to consumers on the stunning of animals. Available at: https://ec.europa.eu/food/system/files/2016-10/aw_practice_slaughter_fci-stunning_report_en.pdf

⁸⁰ Mayfield, L. E. et al. (2008) Consumption of Welfare-friendly Food Products in Great Britain, Italy and Sweden, and How It May Be Influenced by Consumer Attitudes to, and Behaviour towards, Animal Welfare Attributes. *The International Journal of Sociology of Agriculture and Food*, 15(3), 59-73. Available at: <https://www.ijisaf.org/index.php/ijisaf/article/view/284>

mapped schemes, at least 48 schemes were using primarily logo and/or text-based information on food packaging. A further three schemes were recognisable to consumers as food brands that had associated welfare requirements for their products. Nevertheless, the majority of these labels had a corresponding website providing additional information to consumers about the label's welfare credentials. In some cases, the animal welfare credentials were not specified alongside a label's logo, which indicates that interested consumers would need to have some existing knowledge that a logo or food brand had such requirements. For example, organic schemes include some animal welfare components but do not always reference this within their logos/text used on product packaging. This may contribute to misconceptions among consumers about the level of welfare that they offer (e.g. one study⁸¹ found consumers valued 'free-range' attributes on products above 'organic').

Haltungsform is the only EU labelling scheme found which ranked a country's *pre-existing* welfare labels. It has four tiers and includes information on its website about which tier each label falls into. Operators can also choose to use the Haltungsform logo on their product packaging, to indicate the products' tier. It is likely that this better enables consumers to compare different animal welfare labelling schemes, although this could not be verified. At least two of the case study interviewees involved with existing schemes felt that structuring a new labelling scheme in this way was preferable. This was primarily because they expected it to be less disruptive to their current business model.

A possible option for communicating information to consumers about animal welfare on product packaging is through the use of **reserved terms**.⁸² Reserved terms already exist for the marketing of table eggs within the EU, which require the system of egg production to be specified. There is evidence to suggest that this requirement can positively influence consumer purchases of eggs labelled with the higher welfare production methods (free-range and organic), shown by greater consumer WTP⁸³ and the decreasing use of cages in EU egg production over time (66% in 2010 to 48% in 2020⁸⁴).

The use of reserved terms was also recommended by the Scientific Advisory Boards in Germany in 2011. It proposed the introduction of an 'umbrella' food label that separately evaluated areas important to consumer trust (social and animal welfare, health and environmental impact) in conjunction with reserved terms for specific characteristics (e.g.

⁸¹ Gracia, A. et al. (2014) Are Local and Organic Claims Complements or Substitutes? A Consumer Preferences Study for Eggs. *Journal of Agricultural Economics*, 65(1). Available at: <http://dx.doi.org/10.1111/1477-9552.12036>

⁸² "Reserved terms" are mandatory or voluntary requirements that must be met to refer to particular farming methods or standardised welfare indicators. See: European Commission (2009) Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Options for animal welfare labelling and the establishment of a European Network of Reference Centres for the protection and welfare of animals. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52009DC0584>

⁸³ E.g. Lopez-Galan et al. (2013) What comes first, origin or production method? An investigation into the relative importance of different attributes in the demand for eggs. *Spanish Journal of Agricultural Research*, 11(2). Available at: <https://sia.revistas.inia.es/index.php/sjar/article/view/3953>; Mørkbak, M. R. & Nordström, J. (2009) The Impact of Information on Consumer Preferences for Different Animal Food Production Methods. *Journal of Consumer Policy*, 32. Available at: <https://link.springer.com/article/10.1007/s10603-009-9106-9>

⁸⁴ Hartman (2021) Insights into the European egg market. Available at: https://www.hartmann-packaging.com/world/think-news/2_2021-european-egg-market

'from mountain farms') and a ban on misleading information to better enable consumers to make informed decisions⁸⁵.

Whether an animal welfare label is presented on a food product as text or as a logo, the key feature from the perspective of a consumer was that information is clear and simple to understand. Previous studies have found that animal welfare labels should be 'easily visible, simple [and] recognizable'. In practice, this means that it should stand out to consumers to offset the volume of other information on a product⁸⁶ and contain a limited number of words and/or symbols so it can be read quickly. Numbers should not be used as consumers can struggle to make sense of them.⁸⁷

When it came to alternatives to a conventional text or logo-based label, younger people tended to be more open to receiving information electronically compared to those that were older. Overall, less than a third (31%; n=8,335) said they would like a QR code and 18% said they would like a mobile app. By comparison, a respective 40% and 28% of those aged 18-24 (n=748) selected these options. Despite this, product packaging labelling was still the preferred option among this group (74% of 18-24-year-olds had still selected 'Text on the product packaging' and/or 'A logo on the product packaging').

The relatively lower level of interest in QR codes somewhat reflects the limited existing literature on their use to communicate other food product information. A study in the US⁸⁸ investigated the use of QR codes in providing additional information to consumers about oysters. The study found that only 1.2% of study participants shown the code (presented on an iPad) went on to scan it with their own devices. When a smartphone was provided to the participants in conjunction with the QR code on the iPad, the number of people scanning the QR code increased to 52.6%. This suggests the setting and ease with which consumers can scan a QR code significantly influences its success. There was some evidence to suggest that consumers' self-reported intention to scan QR codes was stronger than their actions in reality.⁸⁹

Overall, the evidence suggests that EU consumers are more likely to make purchasing decisions using information that was clear and easily available to them while shopping. This explains their preference to receive information on animal welfare on a food product label, either in a text or a logo format. This preference is consistent across Member States. However, there was still interest in receiving information electronically (e.g. via a QR code and/or website) suggesting that utilising a combination of tools to supply consumers with welfare information would have the greatest reach.

⁸⁵ Bauhus, J. et al. (2011) Political Strategy for Food Labelling: Joint Statement of the Scientific Advisory Boards on Consumer and Food Policy and on Agricultural Policy at the Federal Ministry of Food, Agriculture and Consumer Protection: September 2011. *Berichte über Landwirtschaft*, 90(1), 35-69. Available at: <https://www.cabdirect.org/cabdirect/abstract/20123192823>

⁸⁶ Vanhonacker, F. and Verbeke, W. (2014) Public and Consumer Policies for Higher Welfare Food Products: Challenges and Opportunities. *Journal of Agricultural and Environmental Ethics*, 27, 153-171. Available at: <https://link.springer.com/article/10.1007/s10806-013-9479-2>

⁸⁷ FAWC (2006) Report on Welfare Labelling. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/325184/FAWC_report_on_welfare_labelling.pdf

⁸⁸ Li, T. and Messer, K. D. (2019) To Scan or Not to Scan: The Question of Consumer Behavior and QR Codes on Food Packages. *Journal of Agricultural and Resource Economics*, 44(2), 311-327. Available at: <http://dx.doi.org/10.22004/ag.econ.287977>

⁸⁹ Tallapragada, M. and Hallman, W. K. (2018) Implementing the National Bioengineered Food Disclosure Standard: Will Consumers Use QR Codes to Check for Genetically Modified (GM) Ingredients in Food Products?. *AgBioForum*, 21(1), 44-60. Available at: <https://agbioforum.org/wp-content/uploads/2021/02/AgBioForum-21-1-44.pdf>

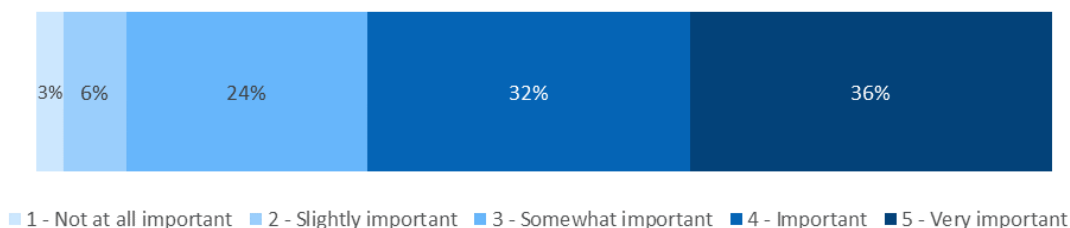
3.1.10 To which extent consumers would favour an EU intervention in this area? What type of intervention(s) would they favour (if any)? [Non-exhaustive list of examples: A common methodology to assess and guarantee the level of welfare of the animals? A common database of current schemes? A common logo?]

Many EU consumers felt it is important for the EU to provide information about animal welfare to consumers. However, there are differences in the strength of this feeling across Member States. There are also consumer characteristics related to their sentiment on the subject, including their feelings about animal welfare and their gender.

Preferences for the type of intervention that the EU could take to communicate animal welfare information were mixed, but as discussed in section 3.1.9, a label or logo would have the greatest likelihood of being attended to by consumers. While alternative options are discussed, there is a lack of data to adequately assess their effectiveness (see section 3.1.9).

As shown in Figure 12, nearly all consumer survey respondents considered it to be at least 'slightly' important for the EU to provide information about animal welfare to consumers (98%; n=10,089). The majority (67%) considered it to be either 'important' or 'very' important. To some extent, this reflected the 2016 Eurobarometer where respondents were positive about the provision of information to consumers – 87% (n=27,672) felt that information campaigns on animal welfare could be a good way to have a positive influence on the attitudes of children and young people towards animal welfare.⁹⁰ The consumer survey supports the notion that the EU may intervene in this manner.

Figure 12. On a scale of 1 to 5, where 1 is not at all important and 5 is very important, how important do you feel it is for the EU to provide information about animal welfare to consumers?



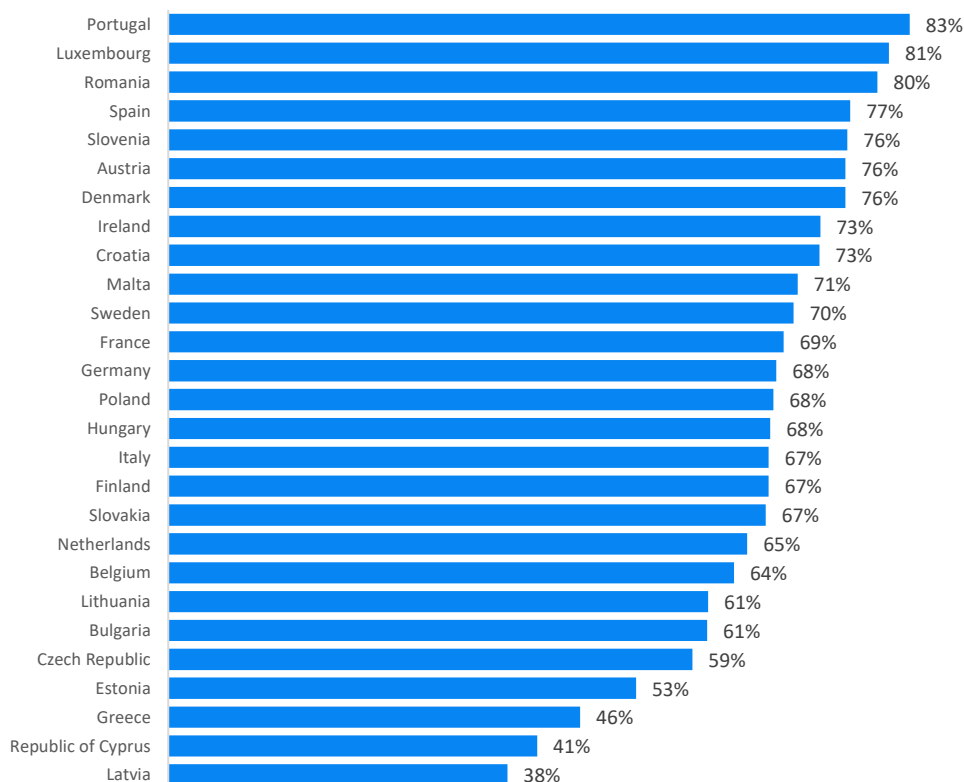
Source: Consumer survey (n=10,089)

There were some differences between individual Member States. For example, consumers in Latvia (38%, n=302), Cyprus (41%; n=309), Greece (46%; n=400), Estonia (53%; n=300) and Czech Republic (59%; n=401), respondents were less likely to consider it 'important' or 'very' important for the EU to provide information about animal welfare to consumers in comparison to those in Portugal (83%; n=400), Luxembourg (81%; n=351), Romania (80%; n=402), Spain (77%; n=401), Slovenia (76%; n=303), Austria (76%; n=400) and Denmark (76%; n=400). In countries with an existing national-level animal welfare labelling scheme, respondents were slightly more likely to feel the provision of animal welfare information to consumers by the EU to be important than those in countries

⁹⁰ European Commission (2016) Eurobarometer: Attitudes of Europeans towards Animal Welfare. Available at: <https://europa.eu/eurobarometer/surveys/detail/2096>

without an existing national-level scheme⁹¹ (72%; n=4,412 and 63%; n=5677 respectively) (see Figure 13).

Figure 13. On a scale of 1 to 5, where 1 is not at all important and 5 is very important, how important do you feel it is for the EU to provide information about animal welfare to consumers? – Proportion of respondents in each Member States that selected '4 – important' or '5 – very important'.



Source: Consumer survey (n=10,089)

There were other interesting trends from the consumer survey. For example, respondents who considered animal welfare to be 'important' or 'very important' to consumers in their country were more likely to consider it important for the EU to provide information on animal welfare to consumers (81%; n=4,779), compared to those who considered animal welfare 'not at all' or 'slightly' important (56%; n=2,267). There were also differences in views according to gender. Females were significantly more likely than males to consider it 'important' or 'very important' for the EU to provide information on animal welfare to consumers (71%; n=5,110 and 62%; n=4,948 respectively). This echoes a study⁹² that found that females were more likely to have pro-animal welfare attitudes.

On the whole, however, **the consumer survey indicates a strong interest among EU consumers in the provision of animal welfare information by the EU.** Consumers in

⁹¹ Due to the nature of the consumer survey, open ended questions were not used and therefore no data was available to explain this trend. Likewise, no literature was found to explain why this might be the case.

⁹² Cornish, A. R. (2020) The price of good welfare: Does informing consumers about what on-package labels mean for animal welfare influence their purchase intentions?. *Appetite*, 148. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0195666319310426?via%3Dihub>

Germany, France, Italy, Spain and Poland make up 66% of the EU population⁹³ and more than half of those in each of these countries stated that it was important or 'very' important for the EU to provide information about animal welfare to consumers. A challenge for any EU intervention in this area will be to provide information to consumers in a way that ensures it is used. Findings from section 3.1.9 suggest that text or a logo on a product label could be the most accessible option for consumers.

The strong consumer support for an EU intervention contrasts with industry views, as documented notably in the context of case studies completed in parallel to the consumer survey, and industry interviews completed for other recent studies. Several industry representatives have expressed sceptical views regarding the introduction of an EU level animal welfare label.⁹⁴ In interviews conducted during the case studies, industry stakeholders noted that the systems they already had were sufficient, particularly in terms of their contribution to market segmentation. This evokes the past investments made in structuring national markets in a manner that suits operators. The disruption of such segmentation would be costly to operators. Industry stakeholders also expressed concerns that welfare standards within their country risked being lowered so that an EU label may accommodate the varying welfare standards found across Member States. This speaks to the heterogeneity of standards found in the EU, with some countries basing their labels on national legislation which may be more protective of animal welfare than EU law. Bringing such differences under a common cap is seen as risking dilution by stakeholders from the countries where standards are higher.

Other industry stakeholders expressed doubts about consumers' interest in labels in general, their ability to navigate an already rich landscape of labels (more so in some countries than others) and their willingness to purchase labelled products. This is somewhat reflected in a study⁹⁵ that found consumers may ignore information if it is excessive. Concerns about the ability to scale up the market for high welfare products are supported by waiting lists operated by certain animal welfare scheme owners, not admitting new adherents out of concern that the size of the market for high welfare products is not sufficiently large. It is also well documented that purchasing intentions of higher welfare products are not necessarily matched by actual purchasing behaviours (see 3.1.5). At least three industry representatives explicitly commented that improvements to animal welfare could be better achieved through enforcement of existing EU legislation than by introducing a new label, echoing concerns recorded in previous studies that there are enforcement gaps in need of being filled in the EU.

Additionally, some expressed concerns that consumers lacked knowledge about existing EU animal welfare legislation and farming practices more generally, which respondents felt should be addressed ahead of, or in conjunction with, any new labelling scheme. This speaks to the findings of the present study, which indeed point to a generally low level of awareness among consumers. Labelling, especially evaluative labelling, may be construed as a partial solution to low awareness. However, the literature (and the conclusions of the animal welfare labelling working group of the European Platform on Animal Welfare) point to the need to accompany any new label by information campaigns, to raise awareness.

Consumer opinion on alternatives to a standard food packaging label (e.g. a **common methodology to assess and guarantee the level of welfare of the animals, a database of current schemes, a common logo**) is more difficult to assess. They are

⁹³ Eurostat data [tps00001], 2021.

⁹⁴ European Parliament (2021), Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU\(2021\)662643_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU(2021)662643_EN.pdf)

⁹⁵ Messer, K. D. et al. (2017) Labelling Food Processes: The Good, the Bad and the Ugly. Applied Economic Perspectives and Policy, 39(3), 407-427. Available at: <https://doi.org/10.1093/aep/pxp028>

novel concepts, and therefore the literature on the subject is limited. They are also more difficult concepts for consumers to visualise for this reason. Nevertheless, the possible effect of these concepts is theorised and examples of schemes using alternative methodologies are described.

Presently, no common methodology that assesses and guarantees levels of animal welfare exists. An introduction of such a scheme could have wide-ranging benefits. Firstly, it could better inform consumers about the conditions in which animals are farmed in the EU and the corresponding welfare implications, given the low levels of awareness identified in 3.1.1. Secondly, it would improve consistency across the EU about what constitutes 'good' and 'better' standards of welfare, making it easier for consumers to distinguish between products. This may help to reduce the risk of "welfare washing", whereby labels portray themselves as high welfare while offering only marginally more than legislative compliance.⁹⁶

A common database of existing animal welfare schemes has been developed and is in use in Germany, in the form of Haltungsform. As described in section 3.1.9, all existing animal welfare labelling schemes in the country are ranked according to their welfare standards. This is beneficial for consumers as they can directly compare the welfare credentials of different schemes. This information is set out on the Haltungsform website, and it has a corresponding logo which can be used on product packaging. However, no literature was identified which has evaluated the effectiveness or consumer reception to this scheme.

Imposing an EU-wide common set of standards – either through a common methodology or through a database of existing schemes – could impact the current market. Existing labels would be segmented in a way that influences how consumers perceive them. They may be deterred from purchasing products holding labels which have comparatively lower welfare standards, leading to the 'standard inflation' issue described in 3.1.9. This is where a higher welfare production method gradually becomes the standard, reducing the premium that can be obtained for it.⁹⁷ There is also a possibility that segmentation of animal welfare standards could exacerbate tensions between Member States by ranking their animal welfare standards and/or labelling schemes against one another. Another possibility is the use of education campaigns that aim to make consumers more informed about what they are eating and therefore make more animal welfare-friendly choices. This could be administered alongside an animal welfare labelling scheme or a promotional campaign to increase consumer awareness. In Finland, for example, Eläinti-to – an independent network of animal welfare experts – have a consumer guide⁹⁸ which intends to support consumers to distinguish between the animal welfare standards of eggs, milk and minced meat products across different brands. The website provides information on the different types of products found in each food category (e.g. organic, ordinary and imported for minced meat from cattle), including living conditions, outdoor activities and well-being factors, as

⁹⁶ E.g. Amann, S. (2007) How the meat industry cheats on their goods. Available at: <https://www.spiegel.de/wirtschaft/verbraucherschutz-wie-die-fleischindustrie-ihre-waren-schoenmogelt-a-523031.html>; Farm Forward (2020) The Dirt on Humanewashing- a farm forward report on consumer deception in animal welfare certification; Compassion in World Farming (2012) 'RED TRACTOR' RANKED LOWEST ON ANIMAL WELFARE. [Online] available at: <https://www.ciwf.org.uk/news/2012/05/red-tractor-ranked-lowest-on-animal-welfare>

⁹⁷ European Commission (2020) Evaluation of Marketing Standards contained in the CMO Regulation, the "Breakfast Directives" and CMO secondary legislation. Available at: <https://op.europa.eu/en/publication-detail/-/publication/309c4642-7ec0-11ea-aea8-01aa75ed71a1>

⁹⁸ Eläin Ruokana - Kuluttajan Opas. Available at: <https://elainruokana.elaintieto.fi/>

well as a welfare assessment. Labels combined with such education campaigns can help to optimise their effectiveness.⁹⁹

To conclude, the analysis shows there is clear demand among EU consumers for the EU to provide them with information about animal welfare. This demand is greater among females compared to males, and among those who considered animal welfare to be more important. A label or logo would have the greatest likelihood of being attended to by consumers, but its effectiveness could be optimised, for example, by introducing educational campaigns and a comparative database, to better assist consumers to interpret its meaning.

A comparative database (a common methodology that assesses and guarantees levels of animal welfare, or a database of schemes) would help to inform consumers about the conditions in which animals are farmed. It could also reduce the risk of labelling schemes portraying themselves as being high welfare when they are only marginally better than the baseline (“welfare washing”).

3.1.11 To which extent the current animal welfare labelling schemes create distortion of competition between EU operators and affect the functioning of the internal market?

Existing animal welfare labelling schemes contribute to distortions of competition between high welfare producers trading in multiple EU states, due to variations in scheme criteria and associated costs. Views among the industry on the extent to which the introduction of an EU-wide scheme could address some of the challenges raised were very mixed, reflecting the contrasting views of high welfare producers and conventional producers.

The purpose of animal welfare labelling schemes is to make products originating from farms (and transporters and slaughterers) apply higher welfare standards distinct from so-called ‘conventional’ products, so that consumers may differentiate between them. As such, labelling schemes are used to prevent EU operators applying lower standards from competing on quality with those that apply higher standards. Whether the current animal welfare schemes are distorting competition between EU operators and affecting the functioning of the internal market speaks therefore to the ability of high welfare producers to differentiate their products from producers following lower standards.

In general, the majority of industry survey respondents believed that an animal welfare labelling scheme contributed to higher competitiveness (67% agree, 7% disagree, 24% neutral; n=46). Businesses that are eligible for an animal welfare label were seen as having a competitive edge as they enabled consumers to make a choice based on how they felt about animal welfare. This created an incentive for all operators to improve their animal welfare standards, to compete with those whose products carried the label. This belief was supported by the scheme members survey, where the majority (75%; n=89) reported that improving their organisation’s image was an ‘important’ or ‘very’ important reason for joining the labelling scheme.

However, **the competitive advantages for operators of animal welfare labelling scheme membership do not necessarily extend outside of their home country.** That is because most current schemes are found in one Member State only. Producers adhering to a scheme in one Member State may find themselves unable to differentiate their products from those of competitors who may have lower welfare standards (and therefore lower

⁹⁹ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

costs) when attempting to trade in another Member State. This is because the scheme they adhere to in their home country is not recognisable to retailers and/or consumers in other Member States. As such, these operators find themselves at a competitive disadvantage. This is problematic for farmers, for who obtaining adequate compensation for their participation in a labelling scheme is critical.¹⁰⁰

Such **distortions** may also be felt when labels found in the country where an operator wishes to trade do not correspond to that which it adheres to at home, particularly **in terms of the requirements**. There too, there may be a competitive disadvantage for the operator adhering to the most stringent of the two labels. Thus, one industry representative noted that the Haltungsform label in Germany did not allocate free-range poultry into the highest level of welfare available, whereas in other EU animal welfare labelling schemes free-range poultry was within the highest welfare band. This was felt to have led to problems in exporting free-range poultry products to Germany. Another representative noted that operators trading in other Member States had to undertake benchmarking exercises across the different labelling schemes, to supply the countries where the schemes existed. There were mixed responses to the industry survey on this topic: 41% agreed and 30% disagreed (n=46) that animal welfare labels had created or increased barriers to access of national markets for operators not based in the country where the labelling scheme was found. However, it is probable this view is influenced by the types of EU trade undertaken by the respondents' members. For example, industry representatives based in Member States where farmers primarily produce products for the national market are less likely to have sufficient knowledge to respond to this question accurately.

As this type of market distortion is specific to operators trading outside their Member State and producing higher welfare products, it is perhaps unsurprising that industry views on the extent to which labelling schemes distorted competition were mixed. Just under a third (30%; n=46) of industry representatives responding to the survey reported it having no effect or only a 'small' effect. Indeed, operators that are not engaging in the segments of higher welfare products should logically not be affected. By contrast, nearly a quarter (22%) felt that they caused distortion to a 'large' or 'very large' extent. Nevertheless, there was a sense that nationally based labelling schemes were not beneficial in supporting a level playing field: almost half (43%) disagreed that animal welfare labels had supported a better level playing field across the EU, while only 13% agreed. The issue surrounding adequate remuneration for participation in labelling schemes was mentioned by at least four respondents, further illustrating the importance of scheme price premiums for farmers. Despite this, Lundmark and Berg highlight that farmers can be 'offered very little in reward for their efforts' to improve welfare, despite the increased costs and administrative burden arising from joining labelling schemes. In fact, they find that in Sweden only one label (KRAV) was linked with a higher price for producers.¹⁰¹

Another issue that was seen to **distort competition** among EU operators related to non-scheme members that were trading in the country where a scheme was located. Farmers resident in a country that has a scheme in place may **feel obligated to join it** (for example, due to peer pressure or pressure from buyers¹⁰²). Industry representatives reported that some retailers would place pressure on farmers to adhere to a labelling scheme. Choosing not to join a scheme could have ramifications for their business (e.g. a retailer choosing not to stock their products). This may explain why more than half (52%;

¹⁰⁰ Schukat, S. et al. (2019) Fattening Pig Farmers' Intention to Participate in Animal Welfare Programs. *Animals*, 9(12). Available at: <https://doi.org/10.3390/ani9121042>

¹⁰¹ Lundmark, F. and Berg, C. (2018) Private Animal Welfare Standards—Opportunities and Risks. *Animals* 2018, 8(1), 4. Available at: <https://doi.org/10.3390/ani8010004>

¹⁰² Schukat, S. et al. (2019) Fattening Pig Farmers' Intention to Participate in Animal Welfare Programs. *Animals*, 9(12). Available at: <https://doi.org/10.3390/ani9121042>

n=46) of the industry survey respondents agreed that animal welfare labelling scheme owners exerted control over sectors or sub-sectors of the market (22% disagreed).

Farmers would subsequently **face competition from non-scheme members located in other Member States**. The products of these non-scheme members could be sold more cheaply by not having to fulfil the higher welfare requirements of the scheme. Such competition may be felt particularly strongly when a share of what farmers sell cannot be sold as high welfare and at a premium. That is notably the case for a significant proportion of a pig's carcass. On such cuts, producers that follow higher welfare standards and incur higher costs may be competing directly with producers from other countries that are not subject to the same standards.

Of the 46 industry representatives that responded to the survey, at least nine commented on the potential for introducing an EU-wide label and the effect this could have on the functioning of the internal market. Once again, sentiment was very divided. Three comments indicated that the challenges resulting from existing labelling schemes could be solved by the introduction of an EU-wide label, as it would ensure a consistent measure of animal welfare between Member States applicable to all EU producers. However, three others expressed concerns about the differences in animal welfare standards across Member States. It was hypothesized that the introduction of an EU-wide label could create disadvantages for countries with existing high animal welfare standards. One stakeholder believed it unlikely that a label would reach the existing legal standard in Member States where national rules were stricter than those at EU-level (e.g. Sweden).

Current animal welfare labelling schemes distort competition between EU operators and affect the functioning of the internal market to at least some extent. This happens through five main routes:

- (i) operators adhering to a label in their home country are unable to sell their products as high welfare products in another market because the label is not recognisable to consumers or retailers there;
- (ii) operators based in countries where a labelling scheme is located feel obligated to join due to pressure from retailers, and are concerned about ramifications for their business if they do not join;
- (iii) operators adhering to a label in their home country face competition from non-scheme members from other Member States, who can sell their products more cheaply as they do not need to fulfil the higher welfare requirements;
- (iv) when the standards of different labels present in the Member State in which they seek to trade differ in severity and associated implementation costs.
- (v) when producers adhering to a scheme have to keep on competing with conventional producers for particular products / cuts when there is no market for those products / cuts to be sold under label and at a premium (as seen also for organic products).

The evidence available does not enable drawing conclusions on the number of operators affected.

Establishing convergent welfare criteria of different labelling schemes could reduce market fragmentation and hence improve the functioning of the internal market. However, it is necessary to recognise that Member States also have differing animal welfare legislation. This could exacerbate these issues if the scheme was structured in a way that did not allow countries with higher standards of welfare to adequately differentiate from those with lower standards; for

example, if a single-tier label was introduced and its standards were lower than the legal baseline in a country with strong animal welfare legislation.

3.1.12 To which extent the existing animal welfare labelling schemes differ in terms of guarantees offered to consumers (type of standards, level of controls, etc.)?

The guarantees that animal welfare labelling schemes offer to consumers are overall very different. While there are similarities in the general areas of welfare that they cover, their audit processes and their responses to non-compliance, their animal welfare standards can vary significantly – even between schemes present in the same Member State. As these standards influence the indicators and controls used for each scheme, it is likely that in reality these are administered very differently.

There are overriding similarities in the areas of welfare that existing animal welfare schemes cover. In relation to on-farm welfare, scheme criteria typically encompassed areas of housing, enrichments, health, feed, handling and positive social interactions (e.g. group housing). Schemes that included slaughter criteria predominantly referred to ensuring animals were stunned, and those that included transport criteria focused on reducing stress for the animal and limiting the amount of time for transportation. These general aspects of welfare covered are discussed in section 3.4.1. However, it is the specific standards that schemes apply to each of these areas of welfare that can vary significantly. For example, in schemes that included requirements around maximum transportation times, this ranged from as little as two hours to as much as 18 hours.

The labelling scheme mapping exercise found that schemes do not necessarily make their specific welfare standards easily accessible for consumers online. Promotional messaging targeting consumers is not always explicit about the precise nature of their welfare standards and they rarely indicated the extent to which they compared with the legal baseline. For example, the website for the Good Farming Star in the Netherlands states that 'pigs have more space in their pens' and that 'extra rules apply to the transport of the animals'. However, it provides no further information on exactly how much more space pigs have or what the extra rules for transport are, nor does it signpost consumers towards places where they could find this information. Where schemes make technical documentation available, this tends to be tailored towards operators rather than aiding consumers with an overview of a label's key welfare standards. For example, the website for the INTERPORC Compromiso Bienestar Animal in Spain states that for farmers to achieve its certification they must meet 'more demanding requisites' in areas of animal health, biosafety, housing, food safety, traceability and environment. However, to access more specific information than this, consumers would need to review the scheme's specific technical documentation, which comprises 125 pages of detailed requirements for scheme members.

These challenges are compounded by the number of different animal species covered by labelling schemes, which themselves have varying criteria. As an illustration, some of the key standards for pigs on two labels in Germany were compared: *Initiativ Tierwohl* (*Haltungsform tier 2*), and the organic *Bioland* scheme (*Haltungsform tier 4*). This comparison illustrates how standards can diverge fairly significantly across two labels only (see Table 10). For example, *Initiative Tierwohl* has a space requirement of 2.75m² per sow when a pen holds a group of five animals, which exceeds the *Bioland* requirement. However, *Initiative Tierwohl* has no requirement for outdoor access or total stocking density, whereas *Bioland* has.

Table 10. Comparison of animal welfare standards of two German labelling schemes

	Initiative Tierwohl	Bioland (Organic)
Outdoor access	No requirement but light openings in barn must be at least 3% of the floor area	Pigs must be allowed access to open air runs; During the summer months period, breeding pigs, wherever possible, are to be afforded access to a pasture
Space	Minimum 2.26m ² and 2.75m ² per sow (depending number of animals in group)	Minimum 2.5m ² indoors and 1.9m ² outdoors per sow
Stocking density	No requirement	Maximum 6.5 breeding sows, 10 pigs & 74 piglets per hectare
Feed & water	Roughage & access to drinking water; mandatory annual water check	Roughage & access to drinking water
Rearing piglets	No requirement	Piglets are to be reared by natural milk for a period of at least 40 days
Antibiotics	The owner must participate in antibiotic monitoring according to the QS guidelines	Forbidden as a feed additive & restrictions on other types of use
Health	Farmer must have a health plan that records mortality rates	Conventional medication should be used exclusively to prevent unnecessary suffering on the part of the animal and to preserve life; treatment of animals for health conditions must be recorded
Housing	Barn checked for functionality of technology (e.g ventilation, air flow, alarms) & climate	Tethering of sows is not permissible. Suitable barn climate (temperature, humidity, air circulation, dust nuisance and concentration of harmful gases)

Nearly all schemes for which control procedures could be documented used third party auditors for some or all of the audits carried out on operators (92%; n=37). Of these, five schemes used third party audits in conjunction with their own audits while four used them in conjunction with self-audits carried out by the operators adhering to the scheme themselves. The remaining 25 applied third party auditing exclusively. In the three schemes where third party auditors were not used at all, audits were being carried out by the scheme or the scheme owners. These different designs speak to different levels of audit independence and rigour, which may be further influenced by the arrangements for paying the auditor. If the latter is paid by the auditee, the level of independence of the auditor is less than if it paid by another party (for instance, the retailer sourcing the product from the auditee).

Information about the frequency of external audits was found for 26 schemes and the majority (65%) carried these out annually. At least three of these schemes also had requirements for self-audits by farmers between the annual inspections. Some schemes (15%) carried out in-person audits less frequently – ranging from once every 15-18 months to every 2-3 years – though one of these schemes (Pro-Weideland) also carried out audits on farm documentation annually. The remaining four (two NGO, two private schemes) carried out audits at least twice a year, or as often as four times a year depending on the

certified business and its production model. In the case of the KRAV Certified scheme, audit frequency was reduced to an annual visit after the farmer had been certified for three years. These varying frequencies and the extent to which audits are farm visits or rather documentary checks again indicate different levels of guarantee. The duration of production cycles may be usefully compared with the length of time separating audits. More frequent audits and on-farm visits provide the stronger level of guarantee.

Of the 28 schemes where information was obtained on the scheduling of audits, half (50%) used a combination of announced and unannounced visits while a third (36%) generally always announced checks. Only four schemes (14%) operated on the basis of almost exclusively unannounced audits and three of these were based in Germany – Neuland, Association for Controlled Alternative Husbandry (KAT) and Mehr Tierwohl. However, it is worth highlighting that information about how far in advance audits were announced was limited for all the schemes. Some 'unannounced' visits were communicated to farmers within a certain time frame beforehand (e.g. 48 hours in the case of DANISH Produktstandard), which suggests that different schemes have different interpretations of 'unannounced' vs 'announced'. These distinctions matter in terms of how much they enable auditors to see when going on a farm visit. Unannounced audits are more likely to uncover breaches of standards than announced audits.

The types of controls carried out were primarily on-farm audits in conjunction with documentation checks. A few schemes also looked at traceability, including audits of other operators in the supply chain such as slaughterhouses. Activities during audits could vary, but those most frequently mentioned included discussions with farm managers and staff, assessments of animals, collecting product samples, nutritional quality controls, reviewing mortality registers and operating data, compliance checks and measurements of housing and outdoor areas. For schemes where the indicators used were available, they varied according to their specific scheme characteristics (e.g. the species and welfare dimensions that were covered). Some of the more commonly referred to indicators related to areas such as animal density, outdoor access, enrichment facilities, transport times, cleanliness/hygiene of housing, ability for animals to socialise, feed content and access to feed, handler knowledge, availability and quality of water and housing ventilation. Schemes did tend to incorporate at least some measures that were animal-based – most commonly in relation to the presence of mutilations and checks of animal health – but resource-based measures represented the vast majority of the indicators used. This is likely due to animal-based measures being more difficult and expensive to implement¹⁰³. The Spanish Welfair® scheme was an exception to this trend, however, in that all of its criteria were animal-based. Further, the scheme criteria included measures to assess an animal's emotional state which were not typically found in other schemes. Several schemes did encompass other factors beyond animal welfare in their assessments, including product traceability and biosecurity. Measures of environmental protection and sustainability were also mentioned as being included in some audits, particularly those administered by organic schemes.

Information about enforcement was available for 21 of the mapped labelling schemes. All of the schemes tended to address non-compliances through an escalation process, though the specifics, including the type of sanctions used, differed. Most (90%) first provided a period of time to the operator (typically the producer/farmer) to address the problem – usually 28 days but sometimes they would need to be immediately rectified. Some (19%) also required an action plan to be produced where the operator detailed the steps they would be taking. For lower level non-compliances, operators could receive a written warning. After the specified period, another audit would take place to review whether

¹⁰³ Sørensen, J. T. & Schrader, L. (2019) Labelling as a Tool for Improving Animal Welfare—The Pig Case. *Agriculture*, 9. Available at: <https://www.mdpi.com/2077-0472/9/6/123>

appropriate action had been taken. In most cases (67% of schemes), if the non-compliance had not been adequately addressed, or if the non-compliance was critical, the operator would receive a temporary or permanent expulsion from the labelling scheme. Four schemes included more severe penalties, which could be financial (e.g. Initiative Tierwohl may penalise farmers up to all the price premium paid since the last audit, Naturafarm may implement contractual penalties) or a report to the relevant national competent authority (e.g. in the case of the Svensk Fågels scheme). Additionally, Svenskt Sigill (Sigill Kvalitetssystem) stated that in severe cases they could shut producers down entirely. None of the identified schemes had publicly available data on compliance or audit outcomes.

The extent to which animal welfare labelling schemes were themselves evaluated was explored in a European Parliament¹⁰⁴ implementation assessment on EU animal welfare labelling. It did not identify any schemes where external, independent evaluations were carried out. Some carried out internal reviews regularly (e.g. annually through their governing bodies / the scheme Board) or were subject to examination by the relevant public authorities, while others had no measures in place to assess performance. This was interesting, given that the independence and reliability of labelling schemes was an essential component in ensuring consumer trust. For example, one study¹⁰⁵ found that consumers were interested in the sources of food labelling information and required third parties to 'guarantee the truthfulness of the information received'.

Finally, information about the approach of the national-level labelling schemes towards operators from outside their Member State was limited. This is discussed in section 3.1.14.

To conclude, the guarantees that animal welfare labelling schemes offer to consumers are overall very different from one scheme to another. The structure of audits on scheme members followed a common pattern but varied in terms of the specific types of audits and frequencies. The animal welfare standards adherents had to comply with varies significantly from one label to another, even within the same country and for the same species. As such, the way these audits and enforcement activities are carried out is necessarily very different, as they are testing varying criteria and using different indicators.

It can be challenging for consumers to understand the precise nature of scheme guarantees based on the information available on their website. Further, the extent to which controls procedures could be accurately documented was limited. These findings indicate that the current state of play is one of considerable diversity, providing consumers different levels of information and guarantees depending on where they are in the EU and what labels they have access to when purchasing food.

3.1.13 To which extent the existence of multiple animal welfare labelling schemes and differences among them contribute to facilitate or confuse consumers in their choice for higher welfare standards?

The existence of multiple animal welfare labelling schemes can contribute to consumer confusion. Sometimes visual similarities can cause misinterpretation, and product types containing different labels with similar criteria can be challenging for them to compare.

¹⁰⁴ European Parliament (2021), Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level. Available at:

[https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU\(2021\)662643_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU(2021)662643_EN.pdf)

¹⁰⁵ Banterle, A. et al. (2012) Food Labelled Information: An Empirical Analysis of Consumer Preferences. International Journal on Food System Dynamics, 2, 156-170. Available at: <http://131.220.45.179/ojs/index.php/fsd/article/view/325/259>

However, even where only a single animal welfare label is present on a product, the presence of other labels (e.g. on nutrition or other sustainability topics) can create confusion. Additionally, consumers may be confused by the various dimensions of animal welfare and wider criteria that a label covers due to lack of understanding and precise information from the scheme owner (see previous section).

Some research suggests that the proliferation of labels (whether they relate to animal welfare or to other attributes of the product) in some countries of the EU (in particular in the Netherlands, Sweden, Germany, but also France) can lead to "label fatigue" and confuse consumers, undermining the original intention behind providing information in the first place¹⁰⁶. The existence of multiple labels on the *same* product can lead to 'information overload'; when *different* products contain different labels with common meanings, consumers struggle to compare them and may simply choose the label they better understand¹⁰⁷.

Studies show consumer trust is a key element to avoid creating confusion or overload¹⁰⁸, yet trust varies from country to country¹⁰⁹. Other studies focus on the design or level of detailed information on labels as it relates to credibility¹¹⁰. This could have implications for the introduction of an EU-wide animal welfare label, as products in countries with existing animal welfare labelling schemes may include the logos for both on packaging. This could in theory result in their being ignored entirely by some consumers, if the labels are perceived as conveying different messages rather than similar ones (as is the case for organic labels). Nevertheless, consumer understanding of a new label could be supported through accompaniment of a marketing campaign which can help to optimise a label's effectiveness.¹¹¹

The animal welfare labelling scheme mapping exercise has shown that, of the 10 Member States with national-level labelling schemes that encompass animal welfare, seven had two or more schemes (not including those schemes that were international or EU-wide). In countries where there were two or more labels, sometimes the labels were distinct in the species covered while in others there were multiple labels covering the same species. For example, in Austria there were three identified schemes with one encompassing fish and the other two encompassing livestock. In Denmark, there were three identified labels covering pigs. When taking into account the EU-wide and international labelling schemes, there was potential even for those consumers in countries without national-level schemes to encounter multiple labels while shopping. For example, the European Organic Certification and Naturland are present in multiple countries and both relate to organic production. Nevertheless, when consumers were asked how many different animal welfare labels they recalled seeing on food products in the last three months, those residing in Member States where multiple national-level labelling schemes existed were slightly more likely to report having seen 'more than one' (see Figure 14). Sweden was the exception: although four schemes exist in addition to those that are EU-wide or international, reports of seeing any labels was relatively low. When subsequently asked whether the existence of

¹⁰⁶ Rupperecht, C.D., Fujiyoshi, L., McGreevy, S.R. and Tayasu, I., 2020. Trust me? Consumer trust in expert information on food product labels. *Food and Chemical Toxicology*, 137

¹⁰⁷ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at:

https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

¹⁰⁸ Messer, K. D., Costanigro, M., Kaiser, H. M. (2017). Labelling Food Processes: The Good, the Bad and the Ugly. *Applied Economics Perspectives and Policy*, Volume39, Issue3, September 2017, Pages 407-427

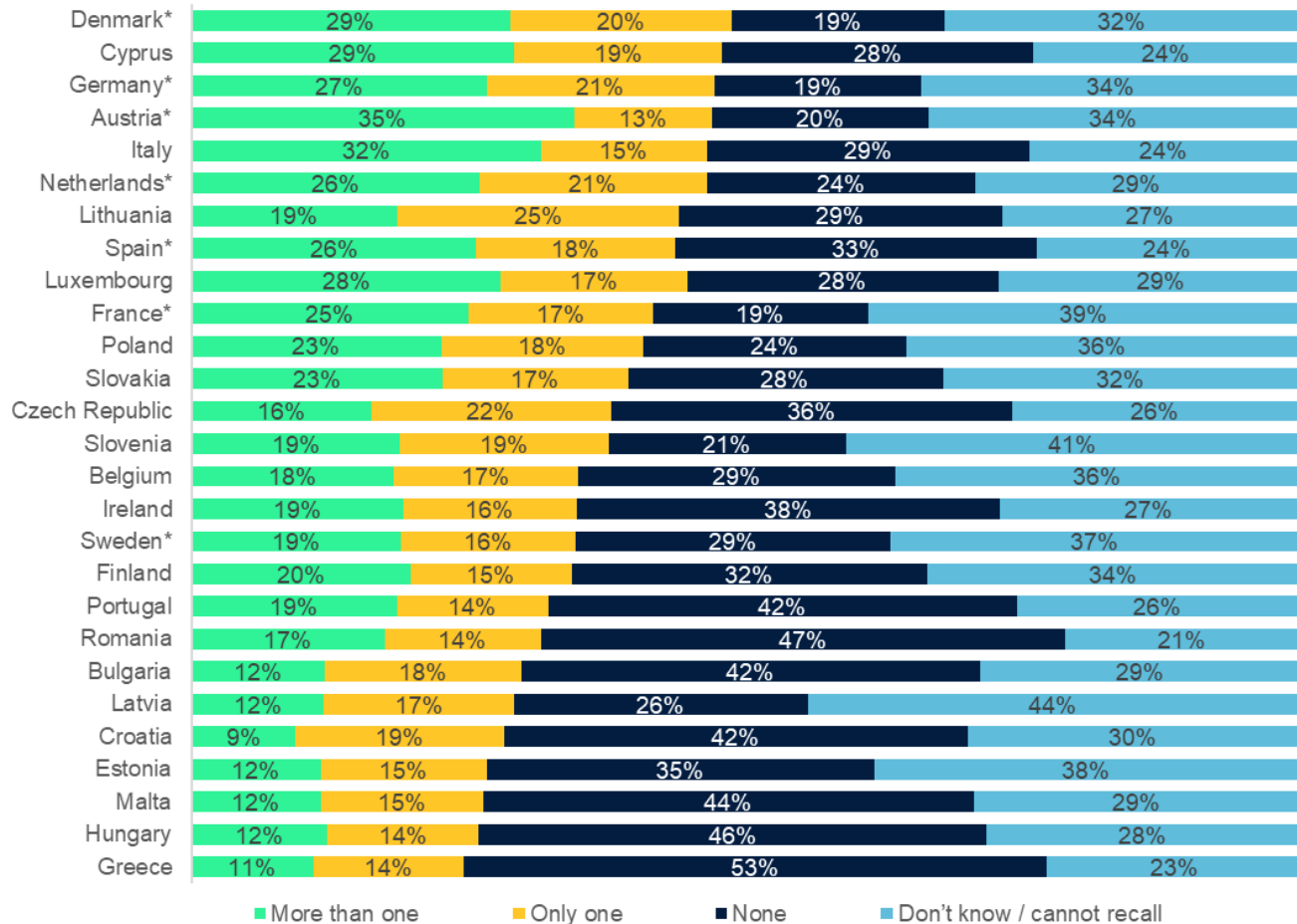
¹⁰⁹ Nocella G, Hubbard L, Scarpa R (2010) Farm animal welfare, consumer willingness to pay, and trust: results of a cross-national survey. *Applied Economic Perspectives and Policy* 32(2): 275-297.

¹¹⁰ D'Souza, C., Taghian, M., Lamb, P. and Peretiakko, R., 2007. Green decisions: demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, 31(4), pp.371-376.

¹¹¹ Ibid.

multiple labelling schemes had made it easier or more difficult to choose which product to buy, over half (58%) reported finding it 'extremely' or 'somewhat' easy while just 12% said it was 'extremely' or 'somewhat' difficult (n=2,064). This indicates that consumers themselves do not feel the existence of multiple schemes to be confusing. Retailers are known to limit their offer of products and to structure it in specific ways. This limits somewhat the extent to which consumers may be exposed to different animal welfare labels on the same product category within the same store.

Figure 14. Thinking about your food shopping in the last three months, how many different animal welfare labels do you recall seeing on food products in your usual shopping place (supermarket or other)?



*Member State with multiple labelling schemes.
Source: Consumer survey (n=10,089)

Nevertheless, across all Member States, the majority reported having seen no animal welfare labels or that they didn't know/couldn't recall (63%; n=10,089), ranging from just over half (51%; n=400) in Denmark, where there were multiple labelling schemes at country level, to almost three-quarters (76%; n=400) in Greece, where only EU or international schemes existed. This may indicate a degree of confusion or disinterest in animal welfare labels among EU consumers, even when the number of labels existing in their country was small. In case study interviews some stakeholders emphasised the influence that the existence of multiple schemes could have. It was suggested that, because they covered various topics and elements of food production, consumers had poor levels of interest due to confusion about the meaning of different labels.

These views are somewhat supported in the literature. Messer et al.¹¹² found that consumers ignored labelling information completely if there was too much of it. Similar results were seen in the JRC review on nutritional labelling¹¹³ which referred to Mitchell et al.'s conceptual model of consumer confusion.¹¹⁴ It stated that, where labels looked similar (e.g. colours, logo design) but had different meanings, consumers could misinterpret them. This is relevant given the large number of animal welfare labelling schemes using green colours illustrated in section 3.1.8, which have the potential to be confused with one another. The model also identified an issue with ambiguous or unclear information: where there are *different* labels, on *different* products, but on the *same* topic, consumers can experience difficulties in comparing them. Indeed, they will often choose products containing the label they understand rather than attempt to compare them. This too is likely to affect animal welfare labels. For example, the Haltungsform scheme ranks German animal welfare labels and food brands into four tiers for each species. Hence, consumers in the country may encounter situations where different labels are used on variations of the same product type. In the case of pigs, more than 25 schemes and brands are mapped into the four tiers.¹¹⁵ It is therefore highly likely that German consumers would encounter several of these whilst shopping for pork.

The consumer survey results also indicated a possible generational divide. The proportion of those reporting that they had seen an animal welfare label (either 'one' or 'more than one') was greater among younger age groups: half of those aged 18-34 (50%; n=2,516), compared to a minority of those aged 55+ (29%; n=4,022). This echoes the literature, which finds that concern for animal welfare decreases with age¹¹⁶ and attention to food labelling tends to be driven by a specific need.¹¹⁷ Younger age groups were perhaps more likely to take note of a label that referred to animal welfare in the first place due to an interest in the subject, despite the volume of other information available on a food product.

Industry representatives also expressed concerns about the risk of consumer confusion. Most (80%; n=46) felt that the presence of multiple labelling schemes confused consumers in their choice for higher welfare standards. The majority who believed existing schemes differed from one another in at least a small way, felt that these differences confused consumers to either some or a large extent (76%; n=33). More than half of the respondents also disagreed that animal welfare labelling schemes contributed to higher consumer awareness (54%; n=46) while just 13% agreed. Respondents frequently mentioned that consumers would find it difficult to actively compare different schemes. They also highlighted consumers' lack of knowledge about different welfare standards and the ways that welfare was assessed. One respondent expressed concerns about the risk of 'animal welfare washing', whereby consumers could be misled into purchasing a product in the belief it was more animal welfare friendly than it was. Such concerns, also shared by one NGO, were not without substance: in the US, the lowest level of a multi-level animal welfare

¹¹² Messer, K. D., Costanigro, M., Kaiser, H. M. (2017). Labelling Food Processes: The Good, the Bad and the Ugly. *Applied Economics Perspectives and Policy*, Volume39, Issue3, September 2017, Pages 407-427

¹¹³ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

¹¹⁴ Mitchell, V.-W. et al. (2005) Towards a Conceptual Model of Consumer Confusion. *Advances in Consumer Research*, 32, 143-150

¹¹⁵ <https://www.haltungsform.de/im-ueberblick/>

¹¹⁶ Cornish, A. R. (2020) The price of good welfare: Does informing consumers about what on-package labels mean for animal welfare influence their purchase intentions?. *Appetite*, 148. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0195666319310426?via%3Dihub>

¹¹⁷ FSA (2016) Food Standards Agency – Understanding NI Consumer Needs Around Food Labelling. Available at: https://www.food.gov.uk/sites/default/files/media/document/consumer-needs-around-food-labelling_0_0.pdf

label introduced by a large retailer reflected compliance with only basic standards, which meant they were not necessarily more welfare-friendly than unlabelled products. This was misleading for consumers, who assumed the existence of the label alone meant the products were more welfare friendly¹¹⁸. Respondents also believed that multiple schemes led consumers to doubt their credibility. In their view, consumers wanted simplicity (welfare-friendly or not), despite the subject itself being highly complex. These industry views may also be influenced by wider industry concerns about the potential disruption the introduction of a new animal welfare label could have.

Even when consumers pay attention to labels, the evidence suggests that they can be confused without necessarily realising it. Further, this may occur even if they are only exposed to a single animal welfare label. This may explain why only a small minority of consumers that reported having seen multiple animal welfare labels believed this made it more difficult to decide which product to buy. The JRC review¹¹⁹ observed that, where there are multiple different scheme labels of different types, there can be an issue of information overload whereby consumers struggle to interpret them. This is relevant given that existing animal welfare labels are likely to be present on product packaging that contains labels for other topics (such as nutrition or other sustainability issues). As such, this negates whether or not multiple animal welfare labels exist in a country because even the existence of labels on entirely different topics could affect consumer interpretation of an animal welfare label.

There is also the possibility that consumers can be confused or misled by a label due to the various dimensions that it covers. Messer et al.¹²⁰ provided the example that consumers may be willing to pay a price premium for a product that fulfils a particular sustainability criterion (e.g. being produced locally), even though other factors about its production mean its energy consumption is no more sustainable than other products without a label or corresponding price premium. Janssen et al.¹²¹ similarly found that the existence of misleading labels made consumers less responsive to all messaging, even when it was accurate. One industry stakeholder felt that designing an animal welfare label for the fish farming sector was particularly problematic. This is due to a lack of standardisation in an industry that uses different production techniques for different species of fish. As a result, any animal welfare label in that sector could be misleading consumers.

Overall, the existence of multiple animal welfare labelling schemes can (but is not guaranteed to) lead to consumer confusion. While the potential for consumer confusion is established in the scientific literature, there is too little evidence available on how prevalent this issue is in practice. Consumers may misinterpret labels that are visually similar or struggle to compare products with different labels and overlapping criteria. Even where only a single animal welfare label is present on a product, consumers may still be confused due to the presence of labels covering other topics, or because it covers various dimensions that they do not fully understand. Across multiple labels, and particularly when they overlap (e.g. in the species covered), confusion may increase due to the difficulties that consumers have in directly comparing them. This suggests that efforts to simplify

¹¹⁸ Srinis, G. et al. (2017) The Caged Chicken or the Free-Range Egg? The Regulatory and Market Dynamics of Layer-Hen Welfare in the UK, Australia and the USA. *Journal of Agricultural and Environmental Ethics*, 30, 783–808. Available at: <https://link.springer.com/article/10.1007/s10806-017-9699-y>

¹¹⁹ Bonsmann, S. S. et al. (2020) JRC Science for Policy Report - Front-of-pack nutrition labelling schemes: A comprehensive review. Available at: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC113586/kjna29811enn_1.pdf

¹²⁰ Messer, K. D. et al. (2017) Labeling Food Processes: The Good, the Bad and the Ugly. *Applied Economic Perspectives and Policy*, 39(3), 407-427. Available at: <https://doi.org/10.1093/aep/pxx028>

¹²¹ Janssen, M. et al. (2016) Labels for Animal Husbandry Systems Meet Consumer Preferences: Results from a Meta-analysis of Consumer Studies. *Journal of Agricultural and Environmental Ethics*, 29, 1071-1100. Available at: <https://link.springer.com/article/10.1007/s10806-016-9647-2>

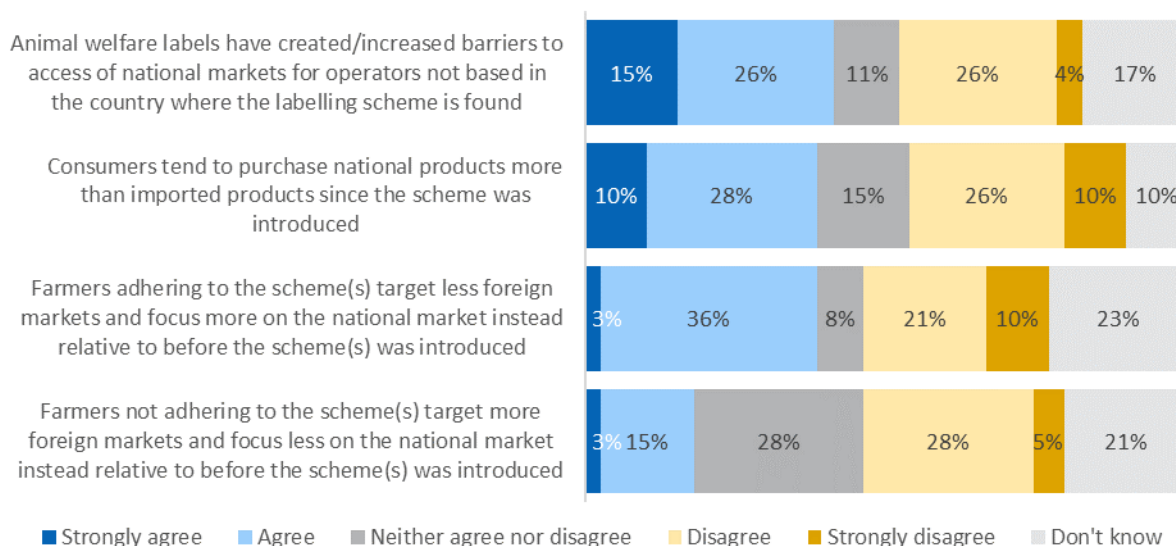
the current landscape of labels while increasing awareness among consumers could help address the risk of confusion identified in the literature.

3.1.14 To which extent the existence of multiple animal welfare labelling schemes and differences among them lead to a de facto “renationalisation” of the market of the products concerned?

Existing animal welfare labelling schemes do contribute to a de facto “renationalisation” of the EU market. National symbols and colours are frequently used in promotional marketing by schemes, which can encourage consumers to align their purchasing behaviour with a sense of national pride or patriotism. Many labels that include animal welfare claims also incorporate national origin claims, which further reinforce the national character of the segment of the market they seek to occupy. Geographical, administrative and supply chain challenges are encountered by both schemes and operators, which further this renationalisation effect.

The concept of “renationalisation” of a market refers to the movement of a market *towards* products that are primarily produced within the country in which they are being sold, and *away* from products that originate abroad. This is of interest to existing animal welfare labelling schemes, as some use explicit or implicit references to the national provenance of labelled products. Respondents to the industry survey had very mixed views on the impact that animal welfare labelling schemes had on national markets. While 41% (n=46) agreed that animal welfare labels had created/increased barriers to access of national markets for operators not based in the country where the labelling scheme was found, 30% disagreed with this statement. Respondents were similarly split on the extent to which they believed consumers tended to purchase national products more than imported products since the introduction of labelling schemes: of those who had animal welfare labels present in the country they operated in, 38% agreed and 36% disagreed with this statement (n=39) (see Figure 15). The reality of a renationalisation effect is therefore likely but not demonstrated here.

Figure 15. Level of agreement among industry representatives with statements about animal welfare labels and national markets



Source: Industry survey – All asked statement 1 (n=46), only stakeholders that reported having labels with animal welfare claims in the countries where they operated were asked statements 2-4 (n=39).

To the extent that consumers have purchased nationally produced products more as a result of the presence of a scheme, this could be explained by 'banal nationalism'¹²² whereby the use of national symbols, like flags, appeal to norms shared among consumers and thus contributes to orientating their purchasing behaviour. This is seen in several of the mapped labelling schemes, such as the Svenskt Sigill and Svensk Fågel which use the colours of the Swedish flag in their logos and market themselves based on working with Swedish farmers, and the Red Tractor in the UK which includes the UK flag integrated within its logo. In Sweden, consumers tend to have a high level of trust in the standards of animal welfare on farms in their country, which may explain why this is utilised in the marketing of the Svenskt Sigill and Svensk Fågel schemes.¹²³ Examples of labels using national symbols and colours are shown in Figure 16.

Figure 16. Labelling schemes using national symbols and colours



Source: Bord Bia, Bienstar Animal, Naturafarm, Svensk Fågel, Red Tractor, Svenskt Sigill, AMA-Gütesiegel, Agri Confiance

Even while schemes utilise national symbols as a means of attracting consumers, it is often difficult to determine from a labelling scheme's website whether it will accept operators from outside of the country in which it is based. Further, this may be an 'unwritten rule' as opposed to a stated requirement for acceptance to a scheme. When the UK was an EU member, owners of the Red Tractor labelling scheme stated they 'did not claim the tractor logo was British' but acknowledged that 'no product [had] been licensed to the Red Tractor other than British product'. They went on to say that they could nevertheless not 'state equivocally that the Red Tractor is British' because this would be 'illegal' in the Single Market.¹²⁴ This strongly implies that non-UK products would not be accepted onto the scheme, but this would not be overtly stated anywhere due to being a blatant contravention of EU rules.

It is possible this lack of clarity partly explains the lack of consensus and higher levels of uncertainty among some industry representatives about the relationship between animal welfare labels and national markets shown in Figure 15. They are likely to have had different experiences in relation to labelling scheme exclusivity and the way this might affect the operators they represent. For example, while 41% (n=46) agreed that animal welfare labels

¹²² Billig, M. (1995) Banal Nationalism. SAGE Publications.

¹²³ Mayfield, L. E. et al. (2008) Consumption of Welfare-friendly Food Products in Great Britain, Italy and Sweden, and How It May Be Influenced by Consumer Attitudes to, and Behaviour towards, Animal Welfare Attributes. *The International Journal of Sociology of Agriculture and Food*, 15(3), 59-73. Available at: <https://www.ijfsaf.org/index.php/ijfsaf/article/view/284>

¹²⁴ House of Commons (2004) Environment, Food and Rural Affairs - Seventh Report. Available at: <https://publications.parliament.uk/pa/cm200405/cmselect/cmenvfru/469/46902.htm>

had created/increased barriers to access of national markets for operators not based in the country where the labelling scheme was found, 30% disagreed with this statement. Respondents were similarly split on the extent to which they believed consumers tended to purchase national products more than imported products since the introduction of labelling schemes: of those who had animal welfare labels present in the country they operated in, 38% agreed and 36% disagreed with this statement (n=39).

Many of those labels also operate as origin labels. As such, they include in the requirements of their standard for the product to be produced in the country where the label is found. As a result, there is a link between animal welfare and origin that further contributes to a renationalisation effect.

More context for the varying opinions on the subject was provided by some stakeholders. As discussed in 3.1.11, from the perspective of operators trading across the EU, national-level labelling schemes could present challenges as the criteria that they used to define animal welfare varied from country to country. This meant that operators had to take action to understand the markets and tailor their offering accordingly so that it was competitive with the labelled products in the countries they were trading in. However, this in turn presented a challenge for those operators primarily trading only in the country where they were based. They could face social or retailer pressure to join a national-level scheme, but by joining their operating costs could increase. This meant greater pricing competition from those operators that were trading in multiple EU countries but were not members of the same scheme.

There are other practical factors which are likely to influence scheme acceptance of operators from outside its home Member State, and therefore contribute to de facto renationalisation. Firstly, if a scheme accepts an operator from another country, it must administer controls and enforcement procedures on that operator to verify their compliance with scheme criteria. This poses a geographical challenge: the scheme may need to identify auditors based in that country or require its own auditors to travel to the country, both of which have administrative and cost implications. Nevertheless, it is not impossible: the Weidemelk scheme is affiliated with five certifying bodies in four Member States and advises operators to apply for certification by contacting them directly, for example.¹²⁵ Likewise, some supermarket chains have policies in place for ensuring suppliers comply with their animal welfare policies regardless of their location.¹²⁶

A second factor contributing to renationalisation is the inevitably increased administrative burden for schemes of accepting operators from outside their country. For example, there are 24 official EU languages and a scheme accepting operators from all Member States could encounter language barriers, limiting its ability to effectively communicate with all its members. For example, while Tierschutz-kontrolliert is present in two countries, they are both German-speaking (Germany and Austria). There is an administrative challenge for operators too, who may have to comply with different standards if they are trading in several Member States, all with their own unique labelling schemes.

Finally, the structure of the national markets in the EU may also contribute to renationalisation. As seen in section 3.1.13, operators can face pressure from the retailers that they supply to join the schemes that are in place in their country, but they will not necessarily place the same expectation on operators which supply them from other countries. This perpetuates the trend towards national-level labelling schemes being focused on the country in which they originate. It is thus notable that, in the scheme members survey, 38% (n=86) of respondents said they did not know whether labelling

¹²⁵ <https://www.weidemelk.nl/en/conditions.html>

¹²⁶ E.g. <https://www.tescopl.com/sustainability/documents/policies/maintaining-and-improving-animal-welfare/more-information-on-our-uk-animal-welfare/>

schemes had set barriers to certain national markets for EU operators. It is likely because the operators answering in this way were primarily trading in their home Member State rather than across the EU, and therefore had limited knowledge of the barriers existing in other markets.

To conclude, the existence of multiple animal welfare labelling schemes can be seen as a contributing factor to a de facto “renationalisation” of the market within certain segments. While such an effect is not firmly demonstrated, it is supported by the views expressed by some stakeholders, and the various factors that can explain it. These include the frequent association between animal welfare claims and origin claims within the same label, the use of visual references to national colours and flags on labels, national supply chain dynamics, and practical considerations, all of which may contribute to market renationalisation.

Additionally, evidence from section 3.1.11 points towards challenges faced by operators that may also contribute to renationalisation. In particular, operators based in Member States where a labelling scheme is located may find themselves unable to sell their products as ‘high welfare’ in other markets, because the label is not recognisable to consumers or retailers there. These operators may therefore focus more on the national market of their home country. These elements point to conditions in which existing labels may be hindering the functioning of the internal market.

3.1.15 To which extent the existence of multiple animal welfare labelling schemes and differences among them has negatively affected producers who provide the highest welfare standards?

The existence of multiple labelling schemes has some negative implications for producers providing the highest welfare standards, due to differences in the welfare requirements of different labels. This can be compounded by retailers, who can place demands on producers and promote products as animal welfare-friendly, even if they do not necessarily reflect higher welfare standards.

Several EU Member States have multiple national-level labelling schemes. As noted in 3.1.13, of the 10 Member States where schemes were identified, seven had at least two schemes in place (excluding those which were EU-wide or international). There is often overlap in the species covered by these labels. For example, of the identified national-level schemes:

- in Denmark, all three covered pigs;
- in France, three of the four schemes covered broilers;
- in Germany, six of the 11 schemes covered dairy cows, five covered pigs and five covered broilers;
- in Spain, three of the six schemes covered pigs and three covered beef cattle; and,
- in Sweden, three of the four schemes covered laying hens and three covered broilers.

Five international labels, as well as the EU-wide organic logo (applicable to all organic animal production) and the EU requirement for method-of-production labelling on table eggs, exist in addition to the national-level schemes. In Austria and Germany, the Tierschutz-kontrolliert scheme is also present.

However, multiple schemes covering the same species does not necessarily mean that the label welfare requirements for those species are the same. The German labelling scheme *Haltungsform* evidences this: it allocates existing schemes and brands with animal welfare commitments into one of four levels.

The presence of multiple schemes with different welfare standards can create challenges for producers with higher welfare standards. Stakeholders expressed concerns that some labels bundle together different modes of production while others distinguish between them. For example, as seen in the Bedre Dyrevelfærd case study, producers for a brand of pig meat which itself made animal welfare claims (Antonius) had seen a decline in sales since the introduction of the multi-level Bedre Dyrevelfærd scheme, under which their products had two 'hearts' for animal welfare out of a possible three.

Similarly, the Haltungsform scheme was a concern for producers outside of Germany that wished to export into that country. A respondent to the industry survey based in France stated that Haltungsform itself did not allocate 'traditional free range' poultry into the highest level of welfare, unlike other schemes. Under the multi-level Dutch scheme Beter Leven, this method of production falls into the highest (3-star) welfare category and it is also the standard required for the French Label Rouge. This inconsistency was problematic for those producers exporting to Germany. Naturally, producers with the highest standards want to differentiate their products from those of competitors with lower standards, but in this instance, the existence of multiple labelling schemes in different Member States with varying requirements means it is easier for them to do so in some countries (e.g. the Netherlands and France) compared to others (e.g. Germany).

Another factor for higher welfare producers is pressure from retailers and other operators in the value chain, who may make demands about different areas of animal welfare (e.g. due to having different labelling schemes/brands with different requirements) which increases producers' costs to comply with them. At least three industry representatives indicated that retailers could place pressure on farmers concerning pricing and/or adherence to a labelling scheme.

The influence of retailers in the supply chain is also seen in section 3.1.13. In one instance, the lowest level of a multi-level animal welfare label introduced by a large US retailer reflected compliance with only basic standards, which meant they were not necessarily more welfare friendly than those products without any label¹²⁷. An animal welfare NGO went on to sue the retailer, claiming that it was misleading consumers into 'paying higher prices for meat from animals on farms raised under standards that differ little...from the industry's paltry minimum standards'¹²⁸.

Such scenarios could have a negative impact on producers raising animals to higher welfare standards, as producers with lower standards (and therefore lower operational costs) could potentially attract the same segment of consumers willing to pay more for a more animal welfare-friendly product. This would in turn place higher-welfare producers in direct competition with lower-welfare producers. It also highlights the role that marketing by retailers has to play in the conversation about animal welfare labelling schemes, in that they may wish to promote products as animal welfare-friendly to appeal to consumers for whom this is a priority, while also ensuring their pricing is competitive for the product. On this basis, they may choose to promote products with low-mid levels of welfare, as opposed to those with the highest levels of welfare, to maximise sales and the profit margin per product. An example of this can also be seen in an Australian study, which concluded that the products of the country's two main supermarkets were only 'a small incremental improvement from a very low baseline while implying to consumers that an absolute

¹²⁷ Srinis, G. et al. (2017) The Caged Chicken or the Free-Range Egg? The Regulatory and Market Dynamics of Layer-Hen Welfare in the UK, Australia and the USA. *Journal of Agricultural and Environmental Ethics*, 30, 783–808. Available at: <https://link.springer.com/article/10.1007/s10806-017-9699-y>

¹²⁸ PETA (2015) PETA Sues Whole Foods Over 'Humane Meat' Claims. Available at: <https://www.peta.org/blog/peta-sues-whole-foods-over-humane-meat-claims/>

standard of good welfare has been reached'¹²⁹. A respondent to the industry survey similarly observed that operators would compete with one another to achieve a premium for their products rather than because they wished to improve animal welfare, describing it as 'a race to nowhere'. However, there is another side to this argument – two industry respondents commented that retailers recognised a discrepancy between consumer willingness to pay for animal welfare expressed verbally and their actual purchasing behaviour, which tended to be driven primarily by price. Retailers may therefore have to strike a balance between these factors in their product offering.

Industry is ultimately not homogeneous, and their views are influenced according to the extent they benefit from the status quo. Producers who benefit from animal welfare labelling schemes which have requirements that are only marginally beyond the baseline are unlikely to be critical about this fact. This may explain why industry representatives tended not to see the negative impact of multiple labelling schemes on higher welfare producers as especially problematic. When asked to what extent they felt the existence of multiple schemes negatively affected farmers who provided the highest welfare standards, just over a quarter (28%; n=43) said not at all or only to a 'small' extent while 19% said to 'some' extent and only a quarter (16%) said to a 'large' or 'very large' extent. A fairly substantial proportion said they 'don't know' (37%), however, suggesting a degree of uncertainty on this point. There was no evidence of any correlation of these varying opinions according to the countries in which respondents operated or the type of businesses or individuals that they represented.

The 2021 European Parliament study¹³⁰ did find that the differences in the welfare standards of different animal welfare schemes could also have positive implications for higher welfare producers: when consulted on the possibility of an EU-wide label, a key concern expressed by business stakeholders was that private initiatives would be discouraged or prevented and this would result in a loss of the competitive advantage for products that met the higher standards. However, this ability to differentiate products does not necessarily apply to all operators. While *Haltungsform* has four levels, for example, it does not differentiate between those producers which provide the highest welfare standards for poultry. All organic labels were automatically allocated into the highest category (tier 4).

To conclude, the existence of multiple animal welfare labelling schemes presents several challenges for producers that meet the highest welfare standards. Labels have differing welfare requirements, which can result in different assessments about how welfare-friendly a product is. When a product gets a lower ranking in another welfare scheme, it may see reduced sales which hinder its expansion to other Member States. If competing retailers have different labelling schemes, producers may face higher costs to meet the differing requirements of the schemes. Finally, retailers may employ marketing tools to emphasise the animal welfare-friendliness of their products while focusing on products with low-mid standards of animal welfare. This is driven by pricing competition with other retailers and the belief that consumers are unlikely to pay more for the highest welfare standards.

¹²⁹ Phillipov, M. and Kirkwood, K. (2018) *The Consumer Labelling Turn in Farmed Animal Welfare Politics: From the Margins of Animal Advocacy to Mainstream Supermarket Shelves*. *Alternative Food Politics: From the Margins to the Mainstream*, Routledge (Critical Food Series, 2018). Available at: <https://ssrn.com/abstract=3137331>

¹³⁰ European Parliament (2021) *Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level*. Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU\(2021\)662643_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU(2021)662643_EN.pdf)

3.2 To which extent the current labelling schemes on animal welfare respond to the consumer demand

3.2.1 Which aspects of the existing labelling schemes are the most successful in addressing consumers' demand? Why?

Most of the schemes identified were administered at a national-level only. In the 16 Member States without national-level schemes, the EU organic label and the eggs marketing standards provide the main frameworks incorporating animal welfare elements, however there is insufficient evidence on whether consumers use them to identify more animal welfare-friendly products. This issue is discussed in more detail within section 3.2.2. Overall, existing schemes did reflect the format that consumers prefer (logos or text on products), had good product coverage and encompassed the range of welfare factors that consumers were interested in. Several labels considered antibiotic use, which was a wider area of interest for a majority of the respondents.

The format of existing animal welfare labelling schemes were predominantly in line with consumer preferences for logos or text on products (79%; n=10,089) described in section 3.1.9, over electronic formats such as QR codes, mobile apps or webpages. Indeed, the overwhelming majority of the schemes identified are label-based. The relative impact of the different formats found on animal welfare schemes available in the EU has not been independently evaluated in the context of this study, therefore it is not possible to conclude on how successful they have been at providing information that consumers have understood and used for purchasing high welfare products.

Current labelling schemes considered as a whole provide a wide coverage of most animal species farmed in the EU. The more established labels tended to have greater coverage (e.g. Label Rouge, Beter Leven) than those more recently created (e.g. Etiquette Bien-Etre Animal, Bedre Dyrevelfærd). When consumer survey respondents were asked about the products they usually bought for their household, the most frequently selected items were milk (86%; n=10,089), eggs (84%) and chicken (83%). These products were also those for which consumers were most likely to report considering animal welfare 'always' or 'most of the time' when purchasing: 43% for eggs, 43% for chicken meat and 35% for milk (n=10,089). In line with this, of the identified labelling schemes around 51% covered broiler chickens, 46% covered laying hens and 44% covered dairy cattle. The relatively high level of consideration for animal welfare when purchasing eggs reported by respondents was particularly interesting, possibly reflecting the impact of the mandatory EU requirement (marketing standards) for the method of production to be specified on table eggs.

Consumer survey respondents gave greater importance to whether the animal had access to suitable food and water, and how healthy the animal was (both scoring an average of 4.4 on a scale where 1 was not at all important and 5 was very important; n=10,089). Accordingly, of the 40 schemes where information about the specific welfare dimensions covered was found, at least 78% specifically covered feed and at least 65% specifically covered health or elements relating to health, such as medicines and disease prevention. However, it is worth noting that consumers placed a relatively high level of importance in *all* of the 14 welfare factors listed within the survey: even that with the lowest rating of importance (whether the animal had been bred to grow quickly / produce a lot) had an average score of 3.7, with over half of the respondents (60%; n=10,089) considering it to be 'important' or 'very important'. While there may be an element of social desirability bias at play, this indicated that the majority of consumers would prefer a label that takes a holistic perspective of animal welfare. This was reflected, to some extent, in existing labelling schemes, which all covered at least two or more welfare factors. Feed, health and

housing were the attributes most frequently covered, but several schemes also had requirements relating to outdoor access, mutilations, space per animal, enrichment, handling practices, breeding and companionship with other animals.

In addition to animal welfare, the most frequently selected issue that consumers wanted to see information about on animal-origin products was antibiotic use (67%; n=10,089). This was something explicitly stated as being part of the criteria for at least nine of the mapped schemes. For example, Tierschutz-kontrolliert forbade the use of preventative antibiotics, Naturland Organic did not allow the products of animals treated with antibiotics more than three times in 12 months to hold the label and Best Farmer – Cuidamos do Bem-Estar Animal restricted their use to specific conditions.

There is a dearth of evidence on the impact of existing labels on consumers. However, it can be noted that, where present, animal welfare labelling schemes have used formatting solutions that are broadly consistent with consumer preferences for the use of logos or text on the front of package. Some labels have provided a wide coverage of species and dimensions that is consistent with the broad expectations of consumers as recorded in the consumer survey.

3.2.2 Which aspects of the existing labelling schemes are the less successful in addressing consumers' demand? Why?

Existing labelling schemes are found in only some but not all Member States of the EU. In that respect, the demand of a substantial proportion of the EU population is not addressed. In the 16 Member States where no national-level animal welfare labelling schemes are found it is not clear whether and how consumers rely on other labels (e.g. the organic label) to choose welfare-friendly products. Existing schemes do not necessarily fulfil consumer demand, with only a minority of consumers obtaining animal welfare information about products using food labels. Besides, a large proportion of consumers in several countries felt the information available to them about animal welfare was not sufficient. Finally, most existing labelling schemes do not reflect consumer preference for a multi-level label and few provide additional information about fair payment of farmers.

One of the factors limiting the success of existing labelling schemes is that the vast majority of labels with animal welfare claims are unique to individual Member States. This means that **the general consumer demand for animal welfare information in countries where only international schemes existed is likely not being met.** Although nearly half of consumer survey respondents from across the EU reported animal welfare to be 'important' or 'very' important in their country (47%; n=8,335), just six¹³¹ of the 51 mapped schemes apply to all EU Member States, and their market penetration within each Member State is largely unknown. Furthermore, there are high levels of reported interest in animal welfare among consumers in countries without dedicated schemes (e.g. 61%; n=405 of Finnish and 51% of Bulgarian; n=400 respondents said consumers in their country felt animal welfare to be 'important' or 'very' important), which sometimes exceed that in countries where animal welfare labelling schemes are found (e.g. 43%; n=402 in Germany and 41%; n=401 in France).

Even in Member States which do have labelling schemes at national-level, the range of species covered, standard requirements and levels of welfare vary greatly from one Member State to the next. It is reasonable to assume that **the demand for animal welfare information on a wide range of species and products (as documented earlier in this report) among consumers in one Member State is not necessarily met by the scheme(s) found in that country.** For example, in Italy, there are no labelling schemes

¹³¹ The mandatory method-of-production label for eggs and the European Organic Certification at EU level; Global GAP, Best Aquaculture Practices, Naturland Organic and HFAC/Certified Humane at international level.

encompassing dairy cows despite nearly half (43%; n=402, compared to 27%; n=8,335 of respondents overall) of the consumer survey respondents resident in Italy saying they thought about animal welfare when purchasing milk 'most of the time' or 'always'. Likewise, in Poland over half (51%; n=400 compared to 43% of respondents overall) said they thought about animal welfare when purchasing chicken meat 'most of the time' or 'always' but the country's only labelling scheme incorporating animal welfare claims was specific to cattle. Information about the drivers of the formation of individual labelling schemes is limited, but overall they do not appear to be designed on the basis of an identified consumer demand. Rather, they intend to harness a generic market demand for animal welfare by creating an offer for interested consumers (as described in the case studies, such as for Bedre Dyrevelfærd).

Another consideration is the way respondents obtain information about how farm animals are kept and treated. Around a quarter (27%; n=8,335) said they got information from labels on food products, which was significantly lower than the proportion that said they got information from TV or radio (49%) or news articles, newspapers or magazines (47%). Further, the survey results do not reveal any differences between the views of consumers in Member States with existing labelling schemes and those without (the proportion getting information from labels on food products was 27% for both, n=3,615 and n=4,720 respectively). This suggests consumers, in general, do not tend to get information from labels on this topic. In other words, **consumer demand for information via a food label is often not met.** Difficulties faced by existing labelling schemes in attracting the interest of consumers is reflected in the sentiment among survey respondents that there was a lack of information about animal welfare available to them. For example, 48% (n=401) of those in France, 45% (n=401) of those in Spain and 34% (n=402) of those in Germany disagreed that there was sufficient information available in their country to allow consumers to make informed choices about the food products they bought based on animal welfare. By comparison, disagreement was lower in several countries which did not have any specific labelling schemes (e.g. 22%; n=302 in Lithuania, 22%; n=401 in Slovakia and 23%; n=405 in Finland). These country-level differences are not as apparent in the industry representatives survey, but respondents across all Member States believed that consumers would like to receive further information about animal welfare, to at least a small extent (87%; n=45). Further, the literature has shown that consumers typically have a lower degree of trust in media sources of information about food products compared to printed labels (e.g. Pieniak et al., 2007; Chan et al., 2013), which suggests a trusted label that responds entirely to their needs may nevertheless have a greater influence on their behaviour than the information they obtain from media sources.

Finally, **there are labelling scheme characteristics that did not entirely respond to consumer demand.** Specifically, there is a preference among respondents for a new EU animal welfare label to be multi-level if it were to be introduced (60%; n=8335), but the large majority of existing product-based labelling schemes identified in the mapping were single-level (75%; n=51).

Overall, the demand for better information on animal welfare from consumers is not successfully met in the EU, and in particular in the 16 Member States where no dedicated labelling schemes with animal welfare claims are found. It is unclear how schemes with EU (organic labelling) or international coverage may be contributing to addressing this gap.

Understanding the extent to which consumer demands are met by existing labelling schemes requires a country-by-country assessment, given the variation in labelling schemes and consumer perceptions across different Member States. This assessment shows that consumer demand for animal welfare information on food labels is not met even in countries where a number of schemes are found.

Only a minority of consumers obtain animal welfare information about products using food labels, and a large proportion of them feel that the information available about animal welfare was not sufficient. This suggests that existing labels are not adequately responding to consumer demand. Additionally, most existing labelling schemes do not reflect consumer preference for a multi-level label. It is unclear whether these gaps may be addressed in the future by private or public initiatives alone in the Member States.

3.2.3 To which extent existing animal welfare labelling schemes related to food products differ in claims and in communication from animal welfare labelling for non-food products (like cosmetic, fur or feathers)? Are there any relevant experiences to draw from non-food products?

The claims of animal welfare labelling schemes for non-food products do not differ significantly from those related to food products. There are far fewer labelling schemes that cover animal welfare in relation to non-food products such as cosmetics, fur and feathers, compared to the number that cover animals farmed for food. The claims of 'cruelty free' cosmetics schemes are also fundamentally different to animal welfare labelling schemes, in that they entirely preclude the involvement of animals. Ultimately, the main learning to draw from non-food products is that marketing is an important factor in encouraging consumers to choose a more welfare-friendly product.

For cosmetics, the Leaping Bunny¹³² label is used globally to indicate a product is 'cruelty-free', i.e. does not test its products or ingredients on animals. Animal welfare NGO PETA also operate the Beauty Without Bunnies¹³³ label which has two logos: one indicates whether a product is cruelty-free only, and one includes the cruelty-free logo as well as confirming that it is vegan (i.e. it does not include any animal-derived ingredients). The logos are visually similar in their use of a rabbit symbol, but there are differences in the way they operate. Beauty Without Bunnies only requires companies to sign a pledge, whereas the Leaping Bunny requires regular audits and supplier monitoring to be implemented by the certified brand. Within the EU, it has been illegal to sell products that have been tested on animals anywhere in the world since 2013, but businesses could still own products available in other non-EU markets that were subject to animal testing. This is prohibited by the Leaping Bunny and Beauty Without Bunnies labels. The Leaping Bunny scheme also goes beyond the EU legislation by prohibiting its certified businesses from testing on animals in any capacity, not only in relation to cosmetics.

The operational aspects of the Leaping Bunny and the Beauty Without Bunnies labelling schemes shared similarities with the animal welfare food labelling schemes: the use of a logo that targets consumers and is designed for use on product packaging, and (in the case of the Leaping Bunny) the application of audits and controls on certified businesses. However, the fundamental claims of the schemes are different, in that the cosmetic labels entirely exclude the use of animals in business processes whereas the food labelling schemes are focused on bettering the welfare of farmed animals. Likewise, the Beauty Without Cruelty¹³⁴ brand is built on the principle of excluding animals from its production processes. This makes the cosmetic schemes more simplistic in the guarantees that they could offer to consumers. Food labelling schemes are faced with more complexity however,

¹³² <https://www.crueltyfreeinternational.org/what-we-do/corporate-partnerships/leaping-bunny-programme>

¹³³ <https://www.peta.org/living/personal-care-fashion/beauty-without-bunnies/>

¹³⁴ <https://www.bwshop.com/about/>

due to the many dimensions of welfare they must consider and the difficulties of communicating this to consumers.

One labelling scheme was identified for products containing feathers – The Responsible Down Standard (RDS).¹³⁵ The RDS is an international certification for businesses and aims to support the humane treatment of ducks and geese used in the down and feather industry. An accreditation scheme for leather (Leather Impact Accelerator¹³⁶) includes an 'Animal Welfare Standards Benchmark'. It has a corresponding logo which certified businesses can use on their products and is similar in its format and structure to an animal welfare food label. No animal welfare labelling schemes were identified that specifically covered fur, though there is a requirement in EU law for the presence of materials of animal-origin used in textile products to be indicated by the phrase 'Contains non-textile parts of animal origin' on its label. However, this has been criticised by animal welfare NGOs for being misleading and unclear to consumers. It does not explicitly state that fur has been used and is only applicable when a garment is composed of *less* than 20% fur, therefore products that contain more fur are not necessarily subject to any label at all.¹³⁷

Regardless of the product type, research found that communicating the additional benefits to the consumer of the more welfare-friendly option (e.g. through product positioning in relation to health, taste, good feeling and social acceptance) meant increasing the likelihood that they would purchase it over the corresponding mainstream product.¹³⁸ This too was influenced by consumer characteristics, including their attitudes towards marketing claims and their sentiment about animal welfare.¹³⁹ Nevertheless, this suggests promoting the additional consumer benefits of products containing an animal welfare label would likely increase consumer willingness to purchase them.

To conclude, there are few non-food animal welfare labelling schemes compared with the number of food labelling schemes. They are broadly similar in structure, though cosmetic labels are fundamentally different in their claims as they exclude animal testing whereas food labels have to consider various dimensions of welfare. Finally, the marketing techniques to encourage consumers to purchase more animal welfare-friendly products are similar regardless of the product type. As for non-food products, promoting the benefits of labelled food products will increase the likelihood that consumers purchase them.

3.2.4 To which extent existing animal welfare claims are integrated into other sustainability claims (environmental claims, nutritional claims, etc.)? If yes, how?

Many existing animal welfare labelling schemes also have additional sustainability claims, including those relating to the environment, food safety, traceability, food quality and social responsibility. However, as seen for animal welfare criteria, the specific standards that underpin sustainability claims vary significantly across different labels.

¹³⁵ <https://textileexchange.org/standards/responsible-down/>

¹³⁶ <https://textileexchange.org/leather-impact-accelerator/animal-welfare/>

¹³⁷ Fur Free Alliance (2017) Mislabeled and Misleading - Fur labelling problems in the EU market: Why consumers need clear labelling of all real fur products. Available at: https://www.furfreealliance.com/wp-content/uploads/2017/09/MislabeledMisleading_Fur-Labelling-Problems-in-the-EU-Market.pdf

¹³⁸ Riemsdijk, L. et al. (2017) Marketing Animal-Friendly Products: Addressing the Consumer Social Dilemma with Reinforcement Positioning Strategies. *Animals*, 7(98). Available at: <https://pubmed.ncbi.nlm.nih.gov/29240686/>

¹³⁹ Grappe, C. G. (2021) "Not tested on animals": how consumers react to cruelty-free cosmetics proposed by manufacturers and retailers?. *International Journal of Retail & Distribution Management*, 49(11)

Only 12 of the 51 mapped labels were focused exclusively on animal welfare. The remaining ones included additional sustainability claims. Of these, most were environmental (40%) but claims related also to food safety and hygiene (19%), traceability (21%), food quality (21%) and social accountability (9%). However, the specific criteria that schemes applied to underpin their claims in each of these areas varied. This reflected the findings of the European Parliament study¹⁴⁰ that found making comparisons between schemes to be challenging due to their objectives, which were often broader than animal welfare.

Environmental claims of different labels included the preservation of natural resources, energy use and the protection of biodiversity. Organic labelling schemes, or schemes which included organic requirements as part of their own criteria, tended to have a particularly strong focus on environmental protection. This reflects the principles of organic agriculture, which place a high level of importance on a reduced environmental impact and biodiversity: two of the four organic principles as defined by IFOAM are Ecology – working with ecological systems and sustaining them – and Care – responsible agriculture that protects health and the environment.¹⁴¹ Within the EU, organic products have been regulated since 1991 and a new Regulation (EU) 2018/848 will be implemented from January 2022. Operators cannot market their food as organic unless they have been certified to do so by a control body that ensures compliance with these EU rules.¹⁴² Some of the legal organic requirements relating to the environment are the prohibition of GMOs and limitations on the use of fertilisers, herbicides and pesticides. At least eight of the mapped labelling schemes were applicable to only organic products, therefore their environmental criteria are likely similar if not identical. This includes Bio-Fisch, Naturland Organic and KRAV Certified. Several other schemes also included organic production as one of the agriculture systems that would enable operators to achieve membership (e.g. ANDA Huevos in Spain).

Numerous labelling schemes did not specifically reference organic agriculture but still included sustainability claims relating to the environment. The specific requirements that substantiated such claims were not always publicly available, but some of the conditions included use of animal feed which was either not imported (e.g. Neuland) or from sustainable sources of soy (e.g. Svenska Ägg Omsorgsprogram), obtaining energy from renewable sources (e.g. Good Farming Star), improved waste management (e.g. INAPORC) and use of permanent, biodiverse grasslands for grazing (e.g. Pro Weideland).

As regard to other criteria integrated into animal welfare claims, mentions of food safety and hygiene could include biosecurity measures such as requiring that visitors disinfected footwear on arrival at the farm, maintenance of effective pest controls and the appropriate storage of farming machinery and equipment (e.g. Origin Green). Other requirements included appropriate application of medicines and storage arrangements for dead animals (e.g. Danish Produktstandard) and having a food safety policy in place (e.g. Global GAP).

Claims of traceability were similar across different schemes. They primarily related to the ability for the product to be tracked geographically and/or across the different operators in the supply chain. Some national schemes had specific country of origin declarations as part of their label, whereby they offered a guarantee that the animal was both born and slaughtered within their country (e.g. Svensk Fågel). Quality claims were more unique to individual schemes. For example, Label Rouge specified both the production conditions and

¹⁴⁰ European Parliament (2021), Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level. Available at:

[https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU\(2021\)662643_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662643/EPRS_STU(2021)662643_EN.pdf)

¹⁴¹ IFOAM (2020) The Four Principles of Organic Agriculture. Available at: <https://www.ifoam.bio/why-organic/shaping-agriculture/four-principles-organic>

¹⁴² European Commission (n.d.-a) Becoming an organic farmer. Available at: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/becoming-organic-farmer_en

the final product as key factors that make products containing the label of a superior quality, but there were not necessarily prescribed requirements given the number of products encompassed by the label.

Finally, three schemes had social accountability claims.¹⁴³ Naturland and the Best Aquaculture Practices scheme both had documentation on social accountability. They covered topics such as human rights, health and safety and employment conditions. Global GAP similarly had requirements for occupational health and safety of workers.

As seen for animal welfare standards in section 3.1.12, the extent of differing standards underpinning wider claims around sustainability has potential to create challenges for consumers. Labelling schemes describing themselves as being, for example, more environmentally friendly or more sustainable do not necessarily share the same criteria – one may focus primarily on biodiversity while another is more focused on energy consumption, for example. If this is not clear to the consumer, they misinterpret the meaning of a claim. As is the case for animal welfare, no specific criteria have been developed to ensure a common understanding of sustainability claims in the context of food labelling. To minimise the number of labels that consumers were exposed to on a single product, several industry survey respondents commented that any EU-wide animal welfare label that was introduced should encompass wider sustainability criteria and other factors of interest.

To conclude, it is common for existing animal welfare labelling schemes to also have additional sustainability claims. These claims span environment, food safety, traceability, food quality and social responsibility. However, the specific standards used to uphold these claims can vary significantly. This has implications for consumers, who may experience challenges in accurately interpreting different sustainability claims.

3.3 To which extent the current labelling schemes on animal welfare contribute to add value to the food chain?

3.3.1 To which extent the consumer's price of products providing animal welfare information differs from the other products?

The consumer's price for most products providing animal welfare information is generally more expensive than those products that do not provide this type of information ('conventional products'). The extent of the price difference varies per sector and country, as consumers' price is also influenced by how supply chains are organised, retailer pricing strategies and market demand (as discussed below in section 3.3.2). Evidence shows that, for those labels using a multi-tier system, the highest tier is always higher priced than conventional products.

To answer this question the study team has reviewed the differences in price for the animal welfare labelled products included in the case studies and compared the on-the-spot prices¹⁴⁴ with those from conventional products. Other evidence used in the answer includes desk research on the topic, particularly literature related to retail pricing strategies and supply chain organisation. There is not much published research on consumer prices for animal welfare schemes in the EU. To address this, the study has reviewed literature on pricing for organic products, as a representation of a 'well-known' labelled product to

¹⁴³ Social accountability claims refer to scheme requirements on social issues. These can include health and safety of employees/workers, assurances on human rights issues, efforts to address inequalities (e.g. fair pay) and employment conditions.

¹⁴⁴ The price the product at a specific date at which it could be bought for immediate delivery

understand consumers' price differences for other animal products that provide high animal welfare.

Evidence from the case studies show that six out of the eight high animal welfare labelled products have a price premium (e.g. Label Rouge poultry products and Better Leven pork products). There are two cases where the high animal welfare product does not have a price premium (ITW pork products and Welfair® dairy milk).

Table 11 shows a comparison of prices between products for the case studies.

Table 11. Price comparison between labelled and non-labelled products

	Product	Conventional price	Labelled price	Price premium
Bedre Dyrevelfaerd (pigs) (DK)	Sausage (kg) ¹⁴⁵	€6.52	€9.28	+42%
Friland (pigs) (DK)	Sausage (kg) ¹⁴⁶	€6.52	€10.08 (organic)	+55%
Initiative Tierwohl (ITW) (pigs) (DE)	n/a	n/a	No price difference ¹⁴⁷	n/a
	Whole chicken ¹⁴⁸	€/kg 3.6	€/kg 5.8	+63%
Label Rouge (broilers) (FR)	Conventional broiler breast meat ¹⁴⁹	€/kg 9.2	€/kg 15.8	+72%
	Conventional broiler leg meat ¹⁵⁰	€/kg 4.0	€/kg 7.8	+94%
Beter Leven (broilers) (NL)	Whole chicken ¹⁵¹	€/kg 7.0	1* - €/kg 8.9	1* +27%
			2* - €/kg 10.0	2* +43%
			3* (organic) - €/kg 14.2	3* +103%
Svensk Fågels (SE) (broilers)	Frozen breast filets of 1 kg ¹⁵²	€/kg 5.85	€/kg 8.3	+43%
Pro Weideland (dairy) (DE) (Haltungsform)	1 litre UHT milk ¹⁵³	€/l 0.85	€/l 1.00	+18%
			€/l 1.59 (organic)	+87%

¹⁴⁵ On-the-sport supermarket price captured 19 November 2021

¹⁴⁶ On-the-sport supermarket price captured 19 November 2021

¹⁴⁷ Indicated by the case study research

¹⁴⁸ Réseau des Nouvelles des Marchés (2019), average regular (i.e. excluding discounts) consumer price within Hyper & Supermarket segment

¹⁴⁹ Kantar Worldpanel (2019), average consumer prices within Hyper & Supermarket segment

¹⁵⁰ Kantar Worldpanel (2019), average consumer prices within Hyper & Supermarket segment

¹⁵¹ On-the-sport supermarket price captured as of 20 July 2021

¹⁵² On-the-sport supermarket price captured as of 15 November 2021

¹⁵³ Supermarket price variation captured in 2019 depending on label and Haltungsform levels. Based on data from: Silke Thiele, H; Thiele, H., M.Sc., M., Koik, Y., Peltner, J. and Schloh Zusatzkosten, N. (2020), Zusatzkosten in der Milcherzeugung und -verarbeitung unter Einhaltung verschiedener Tierwohlstandards. Edmund Rehwinkel-Stiftung der landwirtschaftlichen Rentenbank

	Product	Conventional price	Labelled price	Price premium
Welfair® (dairy) (ES)	Lowest price for one litre of milk ¹⁵⁴	€/l 0.59	No price difference	n/a

Organic products can provide higher animal welfare as one of their requirements is based on a better environment and management of the animals. Animal rights organisations widely recognize organic farming and extensive systems as the most animal-friendly farming approaches. It is also observed that for both labels with a multi-tier system (Better Leven and Haltungsform), the higher level corresponds also to organic products, i.e. the most expensive ones found in stores.

The literature shows that organic products always show a price premium when compared to conventional products, however the price premium varies widely across Member States. For example, in Sweden the price premium is between 20-40%, 20-30% in Denmark, 25-30% in Austria¹⁵⁵, and 30-80% in the Czech Republic¹⁵⁶. Other research shows that the premium varies within products as well. For example, in the Netherlands organic broiler meat is on average three times more expensive than conventional broiler meat (€23.49/kg and €7.49/kg, respectively)¹⁵⁷, while organic eggs in Poland are on average 128% more expensive than regular eggs.¹⁵⁸ A 2019 report by the European Commission¹⁵⁹ examined the price premium for organic milk across Member States in 2013 and 2016. This is detailed in Table 12.

Table 12. Price premium for organic milk compared to standard milk in 2013 and 2016

Country	2013	2016
1. Austria	+12%	+35%
2. Denmark	+12%	+35%
3. France	+20%	+35%
4. Germany	+20%	+55%
5. Netherlands	+12%	+57%

Source: European Commission, 2019

Variations in prices are notable, not only between organic products and products bearing a label incorporating animal welfare claims, but also between similar products bearing different animal welfare labels. The possible explanations for this complexity are discussed in the following sections.

Most products (six out of the eight products studied) bearing a label with animal welfare claim are more expensive than the conventional (non-labelled products). The difference in prices ranges from 18% to 94%.

¹⁵⁴ Average price of milk based on supermarket prices captured 20 July 2021

¹⁵⁵ Bostan, I., Onofrei, M., Gavriluță, A. G., Toderascu, C., Lazăr, C. M. (2019), An Integrated Approach to Current Trends in Organic Food in the EU

¹⁵⁶ Agence Bio (2019), Organic farming and market in the European Union

¹⁵⁷ de Jonge, J., van der Lans, I. A., van Trijp, H. C. M. (2015), Different shades of grey: Compromise products to encourage animal friendly consumption

¹⁵⁸ Pawlewicz, A. (2020), Change of Price Premiums Trend for Organic Food Products: The Example of the Polish Egg Market

¹⁵⁹ European Commission (2019), Organic farming in the EU. A fast growing sector

3.3.2 When price differences exist (between labelled vs. non-labelled products), what are the sources of price differences? Do they differ between sectors, countries, etc.?

The price differences between labelled and non-labelled products are linked to higher production costs, supply chain governance, retail marketing strategies and market demand. Regardless of price differences, the evidence shows that adhering to an animal welfare scheme often leads to higher production costs for the scheme members. However, these higher costs are not always translated into higher prices for the consumer on the final product. This is due to compensation mechanisms within supply chains (as it will be discussed in section 3.3.3) and because production costs often constitute a very limited fraction of the consumer price.

The study team reviewed qualitative evidence based on the case studies to provide an answer. Where available, the answer integrates relevant literature on the topic to help explain the sources of price differences, particularly to try to account for external factors that impact prices beyond higher production costs.

The sources of price differences differ between Member States and products. Price differences are influenced by retail pricing strategies, supply chain governance and market demand, as well as by higher production costs incurred as a result of providing higher animal welfare¹⁶⁰. These sources and variations are explained below, by product and by Member State.

Differences between products

The literature shows that consumers' willingness to pay varies across product categories (e.g. dairy milk versus cheese). This is also observed with labelled products. The dairy milk case studies show that, for a low margin product such as milk, retailers may choose not to add a price premium on it to attract consumers to their establishments with low-priced milk. This is a common strategy used by retailers whose premiums (and margins) are typically achieved on other products (consumers shopping in their shops will purchase other products besides milk, on which the retailer will make its margin), while processors may draw their margin from other dairy products, such as cheese¹⁶¹. While the costs of production for higher welfare milk would be higher, milk is a product for which there has been a downward pressure imposed on producers by buyers. This is because retailers push for low prices from producers to be able to sell dairy milk at a low price and attract consumers given the power asymmetry between retailers and producers.

This is not always the case, however. The dairy milk label studied (Pro Weideland) located in Germany has a price premium, though it is the smallest of the labelled products studied (18% consumer price difference). This points to the manner pricing is heavily dependent upon the characteristics of the product and the dynamics of the supply chains, which labelling alone may not circumvent.

Literature on the organic industry shows that, while the organic consumer price premium cannot be attributed to higher production costs alone, it also indicates, that, if a communication campaign is conducted together with the introduction of new labels, it can help consumers understand the added value of the final product, ensuring a market demand for those products.

¹⁶⁰ Prices are dynamic and can be affected by market shocks. Such shocks are not specific to labelled products, but some can affect labelled products specifically.

¹⁶¹ Hamilton, S.F., Liukonyte, J. and Richards, T.J., 2020. Pricing Strategies of Food Retailers. *Annual Review of Resource Economics*, 12, pp.87-110.

When it comes to other labelled products, such as broilers, the Label Rouge case study shows that within the same animal, price premiums range from 63% for the labelled whole chicken to 94% price premium for a labelled leg meat. This indicates that price differences across products are not only due to higher production costs, but also to the ability to generate higher premiums on specific cuts. Similar trends are observed for pig meat, whereby a proportion of the carcass may be sold as high welfare (or organic), while another may not. Premiums (and margins) are therefore applied to some cuts but not others. The Beter Leven case study shows that retailers consider production costs when setting the final consumer price, but other factors influence them more. Conversations with retailers in the Netherlands also showed that retail sale prices are more influenced by market demand, competitors and by other actors in the supply chain (processors and distributors) than by the costs of production incurred by the primary producer.

A study completed in 2016¹⁶² that compared organic supply chains to conventional chains for apples, drinking milk and pasta found that, in most cases, the difference between retail and farm-gate price is higher for the organic supply chains. The organic farm-gate prices represent a proportion of between 9 % and 62 % of the retail prices, while the proportion is between 6 % and 40 % in the conventional supply chains selected for the analysis. It also found asymmetrical price transmission from producers to consumers, for the different supply chains, particularly for organic pasta, as it involved more stages of processing operations (milling and pasta making).

When prices do not differ between labelled and non-labelled products, this has to do with particular contractual arrangements within supply chains that enable those incurring higher costs to be compensated by others in the supply chain, with those added costs not being directly passed on to the consumer on the labelled products, or only on some of them. This is discussed at greater length in section 3.3.3.

Differences between Member States

When looking at the data by country and comparing across similar products, the case studies show, tentatively, that the size of the price premium on consumers' prices depend on the price set for conventional products. This means that in those Member States where national legislation goes beyond EU law (as is the case in Sweden or Germany), the conventional product will be priced higher than in those Member States where that is not or less the case. Therefore, the price premium between a conventional product and a labelled product in France is seemingly higher than in Sweden (in absolute terms), in part, because the conventional price (starting point) is lower.

Further, data from the organic farming literature¹⁶³, shows that countries with low farm-gate prices¹⁶⁴ for the conventional product had a lower organic price premium than in countries with high farm-gate prices for the conventional product. This explains partially that not all products from different Member States (in the case studies) incur in a price premium for the consumer. This is linked to the dynamics of the supply chain. In some countries primary producers are very well organised, giving them collective negotiating power and therefore greater ability to see their production costs recognised in the prices paid at the farm-gate. This is the case of Sweden, where poultry farmers organised in a single organisation manage the label that covers more than 99% of the national production, or Denmark, where a single entity integrates all producers and processors. By contrast, sectors that are split into many small producers tend to face greater challenges in seeing

¹⁶² Sanders, J., Gambelli, D., Lernoud, J., Orsini, S., Padel, S., Stolze, M., Willer, H. and Zanoli, R. (2016) Distribution of the added value of the organic food chain. Braunschweig: Thünen Institute of Farm Economics

¹⁶³ Sanders, J., Gambelli, D., Lernoud, J., Orsini, S., Padel, S., Stolze, M., Willer, H. and Zanoli, R. (2016) Distribution of the added value of the organic food chain. Braunschweig: Thünen Institute of Farm Economics

¹⁶⁴ The price of the product available at the farm, excluding any processing, transport, or marketing charges.

their costs recognised. Established patterns of bargaining also vary from one Member State to another, setting a particular 'tone' to those negotiations, which in turn can determine the extent to which costs incurred by producers are then recognised in the prices paid to producers (or transporters and slaughterers).

When price differences exist (between labelled vs. non-labelled products), the sources are multiple. While prices are dynamic, these are heavily shaped by market demand. The differences vary per country and industry. Within the same industry, there are also differences by product category. 'Basic products' with low margin such as dairy milk have the lowest price differences, whereas 'luxury products' can have a higher margin and price difference when compared to conventional products. This is not due to production costs, but to different retail pricing strategies. Across countries, the differences are due to the baseline set by national animal welfare legal standards, which can set higher costs for conventional products vs labelled ones, and to the dynamics of the supply chain and habitual practices of price negotiation.

3.3.3 When price differences are related to production costs, what are the main costs (investment, operating) that contribute to them?

Price differences are not only related to higher production costs. Other factors play a very significant role in shaping the prices paid by consumers. Nevertheless, even if higher production costs are not embedded in the final consumer price, case study evidence shows that producers adhering to animal welfare labels generally experience higher production costs. The main production costs are operating costs (e.g. higher feed), and in some cases, investments, and audit costs. Case study data and a review of the scheme members' survey have been used to answer this question. The evidence used is mainly qualitative, using desk research, where available, to support the data. Quantitative evidence is used where available.

While price differences are not only linked to production costs, case studies show that all farmers increase their costs when joining the schemes, and those costs combine infrastructure costs as well as operating costs. Their specific nature varies depending on the species farmed.

Pro Weideland, a dairy milk label in Germany is linked to higher costs of milk production that impact the farmer, but also the transporter and the processor. The latter two are principally impacted by the need to maintain the traceability of the milk they are operating with (see section 3.3.7. for a detailed analysis of the production costs and section 3.3.4. will include the distribution of the value added along the value chain).

The consumer price premium for labelled pig products in Denmark could be linked, partly, to higher costs related to production, slaughterhouses, and transport costs. A recent study¹⁶⁵ reviewed data elicited through expert assessments and estimated the added costs of producing a high animal welfare pig in Denmark.

The total production costs for a conventional pig in Denmark are estimated at 3.10 €/kg, compared to the total production cost of 3.90 €/kg for an animal welfare labelled product (representing a 26% difference). The additional costs are explained by an additional average 0.28 €/kg on-farm costs (such as additional space provided for the sows, lack of cages, additional labour and operational costs to provide enrichment materials and manage

¹⁶⁵ Christensen, T., & Sandøe, P. (red.) (2020). Styrkelse af grisenes velfærd gennem markedsdrevne initiativer: Formidling af resultater fra to forskningsprojekter. Institut for Fødevarer- og Ressourceøkonomi, Københavns Universitet.

a herd with no tails docked), and 0.33 €/kg for slaughterhouses and transporters (e.g. additional transport costs if pigs have to be slaughtered at specific abattoirs, additional costs for handling the meat, logistics costs, etc.). Table 13 shows how the additional costs for animal welfare pigs are spread between the supply chain actors.

Table 13. Additional unitary costs for AW pig production along the supply chain (costs referring to 90 kg slaughtering weight) in Denmark¹⁶⁶

Supply chain actor	Higher animal welfare standards	Additional costs
Farm	No tail docking, additional space and straw, no cages, transport	+0.19 €/kg
Slaughterhouse	Additional unitary costs for pig purchase	+0.28€/kg
	Transport, handling, logistic, specific abattoirs	+0.33€/kg

The case of Svensk Fågels producers is peculiar. They represent 99% of the broiler production in Sweden. Only new joiners incur costs. In the scheme members' survey, 68% of respondents from the label indicated they did not have to make any changes to comply with the label requirements. That is because the conditions set in the label overlap with those set in legislation. The production costs are not higher than for other Swedish producers since all producers in Sweden adhere to the label. By contrast, the cases of Label Rouge (France) and Beter Leven (the Netherlands) show higher production costs that contribute to a higher consumer price. Those costs are particularly linked to feed prices.

The table below shows the cost difference between a conventional product and a Label rouge product. This example illustrates how the costs of feed – a major cost area for broiler farming – differs between a Label Rouge bird and a conventional one, reflecting notably the slower growth until slaughter of the former. There are different feed conversion ratios across these production systems. This ratio is defined as kg of feed per kg live weight broilers. The slower growth rate of the Label Rouge production system (or those systems with higher animal welfare) compared to a conventional production system using fast-growing breeds means that more feed is required under the Label Rouge production system to grow the same number of broilers (see Table 14).

Table 14. Ex-farm production cost comparison between conventional and label Rouge expressed in EUR per kilo live weight¹⁶⁷

€/kg lw	Conventional	Label Rouge	Label Rouge – Conventional
Day-old chick	0,17	0,19	+ 0,02
Feed	0,48	0,87	+ 0,39
Other operating costs	0,08	0,18	+ 0,10

¹⁶⁶ Christensen, T., & Sandøe, P. (red.) (2020). Styrkelse af grisenes velfærd gennem markedsdrevne initiativer: Formidling af resultater fra to forskningsprojekter. Institut for Fødevarer- og Ressourceøkonomi, Københavns Universitet.

¹⁶⁷ Performances techniques et coûts de production en volailles de chair. Résultats 2019. Etude ITAVI, dec. 2020

Investments	0,10	0,32	+ 0,22
Other fixed costs	0,02	0,04	+ 0,02
TOTAL excl. labour	0,83	1,60	+ 0,77
Labour	0,05	0,25	+ 0,20

The Beter Leven case study also shows the higher production costs when comparing the conventional production system to that of the Beter Leven 1 Star, and that of the 3 stars (organic production). In this case, feed costs are the ones with the highest differential (see Table 15).

Table 15. Ex-farm production cost comparison between conventional, Beter Leven 1 star and organic production in EUR per kilo live weight¹⁶⁸

€/kg lw	Conventional	Beter Leven (1 Star)	Beter Leven – Conventional	Organic (Beter Leven 3 stars)	Organic – Conventional
Day-old chick	0.13	0.15	+0.02	0.19	+0.06
Feed	0.50	0.62	+0.13	1.72	+1.23
Other operating costs	0.09	0.12	+0.04	0.13	+0.04
Fixed costs	0.06	0.17	+0.11	0.13	+0.07
TOTAL excl. labour	0.78	1.07	+0.29	2.17	+1.40
Labour	0.06	0.13	+0.07	0.25	+0.19

Another element to take into account when comparing conventional production to animal welfare labelled ones is the feasibility of transitioning from one system to another. The case of Beter Leven shows that high initial investments are needed to adapt farms to label requirements. Farmers are required to install a covered run (veranda), which can cost up to several hundreds of thousands of euros per farm. Obtaining planning permission for these extensions may be challenging. The veranda is a mandatory requirement for all Level 1 (the lowest animal welfare requirements) producers. Investments to refit farms have also been experienced by pig farmers joining animal welfare schemes in Germany.

On the other hand, the Label Rouge case study shows that a conventional broiler producer could not transition easily its farm into a Label Rouge compliant one. The changes required would be too considerable. Instead, the Label Rouge production system requires producers to set their farm as compliant with the label from the beginning they start to operate.

To conclude, where price differences between labelled and non-labelled products are linked to production costs, operating costs are particularly significant for broiler production and are related to feed (due to using slow-growth breeds). Further, investment costs (to allow for more space for the animals) are also experienced by pig and broiler producers.

Should an EU level initiative be implemented on this topic, its impact on production costs would therefore vary per species. The impact on prices would

¹⁶⁸ Van Horne, P.L.M., 2020. Economics of broiler production systems in the Netherlands: Economic aspects within the Greenwell sustainability assessment model. Wageningen Economic Research.

depend on the existing pricing structure in each country, on the baseline of animal welfare practices ongoing in those countries, and the animal welfare standards required by the scheme.

3.3.4 When price differences exist, who are the main beneficiaries/losers in the food chain?

The prices paid by consumers do not always reflect the production costs, as consumer prices are influenced by market demand, retailer pricing strategies and supply chain dynamics. Supply chain dynamics and pricing strategies mean that gains and losses can be distributed in multiple ways between the actors in the supply chain. There is considerable uncertainty about the specifics of value distribution, particularly at the processing and retail steps of the supply chain. This has to notably do with the manner by-products are generated and then priced by processors, the manner retailers recoup margins lost on some product categories by increasing them on other product categories, and the range of costs these operators are incurring.

Data on all of those aspects is notoriously limited, and even the most sophisticated food price observatories in Europe (e.g. the Observatoire de la Formation des Prix et des Marges in France) struggle to draw a clear and trusted picture of these costs and the margins achieved by processors and retailers. With these major limitations mentioned, the case study evidence collected suggests that **retailers have been the main beneficiaries of higher prices paid by consumers for higher welfare products** (as seen in the case studies of the dairy, pork, and broiler supply chains). The data suggests also that, **while farmers may generally recover some or all of the added costs incurred by adhering to a label and complying with its standards, they do not always profit from it**. It could be said that, in some cases, their only reward is the ability to maintain revenue in a context where competition may be rife. For processors and slaughterhouses, the added value obtained because of higher animal welfare varies per product sold.

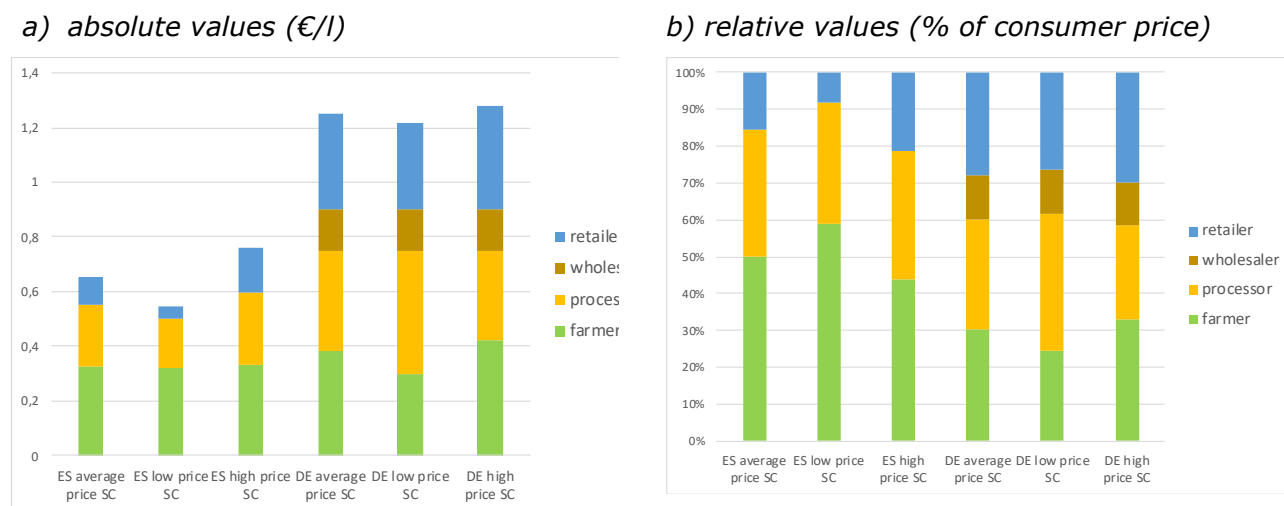
To answer the question, the study considered the role that actors play in the price creation of the supply chain of animal welfare products as apparent from case studies completed in Spain and Germany¹⁶⁹. Data was collected through desk research (particularly for the conventional products data) and from interviews with actors in the selected supply chains. Data was then inputted into a spreadsheet tool specifically developed for this analysis. The price formation measurement along the supply chains follows a “chain” approach, where the sales price for each supply chain actor become the input price for the next actor in the chain. All data refer to a common functional output unit to ensure comparability (e.g. 1 litre of milk, or 1 kg of ham). Crucially, the analysis is limited to prices as only very limited evidence could be gathered on what costs are borne at other stages in the supply chain (transport, processing, distribution).

3.3.4.1 Added value distribution in the milk supply chains in Spain and Germany

The analysis of price formation for milk in Germany and Spain has used extreme price values: minimum and maximum milk prices. The price formation refers therefore to a low price supply chain and high price supply chain (SC). Price formation for the average price is considered as well. Results are shown in Figure 17 referring respectively to (a) absolute (€/l) and (b) relative price distribution (% of the final price) along the supply chains.

¹⁶⁹ These are the only two countries (three cases) where the study was able to obtain comparative economic data across the supply chain

Figure 17. Price formation of drinking milk in different supply chains in Spain and Germany: €/l (excluded VAT)



* price data for farmer in Germany refer to the price paid by processors: it may contain the price share of brokers

The main differences between the Spanish and German supply chains for milk are the retail prices and the supply chain structure. Prices are substantially higher in Germany: German prices range between 1,220-1,280 €/l (excluded VAT) while Spanish prices range between 0,547-0,758€/l.

In Germany, the price component for farmers ranges from 0,3 €/l for the low price to 0,42€/l for the high price. Spanish price ranges are narrower, ranging from 0,3222€/l to 0,332 €/l. The average prices for farmers are higher in Germany than in Spain: 0,38€/l vs 0,327€/l. In relative terms, the price share of Spanish farmers is higher, given the lower levels of consumer prices. For Spain, the share of price for the farmer accounts for 50% (average data) of the final price, and reaches 59% in the low price: in this case, the effects of the low prices impact mainly the retailer. Results for the price components of processors show again a wider range of values for Germany (0.37--/l – 0.44€/l) than for Spain (0.18--/l – 0.26€/l), which might reflect the different cost structure in terms of inputs and labour costs.

In relative terms, the share of price retained at the processor level is more similar (respectively of 34% and 30% for Germany and Spain) due to the lower price level in Spain than in Germany. The wholesaler is reported to have a specific role in the supply chain for Germany only, with an average price component of 0.15€/l (12% of the final price). The price structure for retailers is considerably different between Spain and Germany.

In Spain, retailers retain limited price margins ranging between 0.044€/l to 0.16 €/l. Experts reported that retailers use milk as a product to attract consumers, not to make a margin. Furthermore, in Spain, high animal welfare standards for milk are now considered a basic requirement rather than an attribute that might justify premium prices. **In Spain, as the final price is set by the retailer, and their strategy is to offer an affordable basic product to attract consumers, the introduction of an animal welfare label in the dairy industry did not translate into a higher final consumer price.**¹⁷⁰ How retailers

¹⁷⁰ For instance, the biggest Spanish retailer has been selling more than 80% of its milk under its own brand, all certified by Welfair®, however the label does not appear on the packaging. It is used instead in other settings (e.g. communication/marketing). As a consequence, offering milk at minimum price may be used as a way to attract consumers, while achieving higher profit margins on other products.

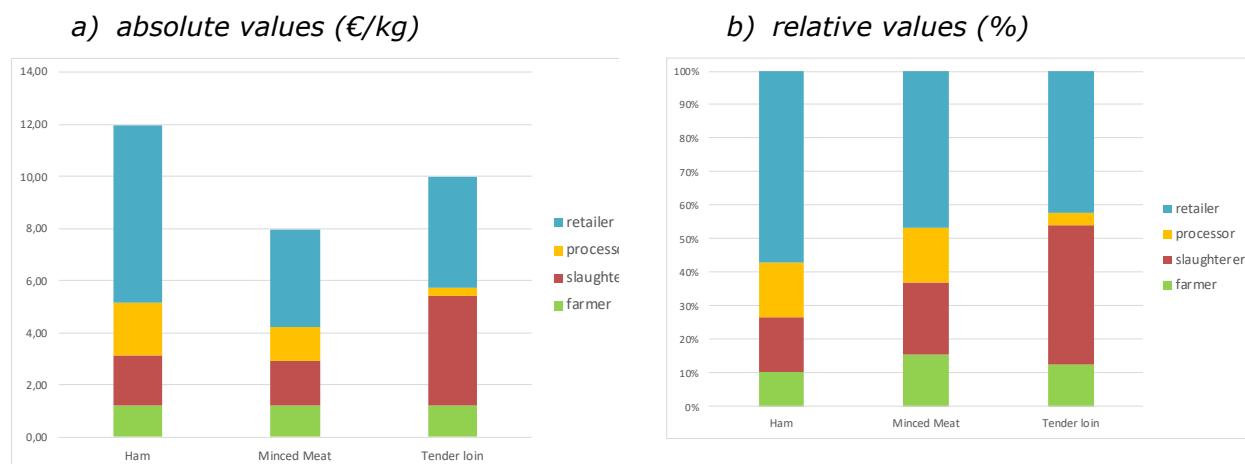
compensate for their low margin on milk by drawing higher margins on either dairy by-products or products from other product categories (which may include non-food products) is not known, but it is reasonable to assume that they do.

The case of Germany further shows the crucial role of the retailer when setting prices: retailers keep the highest price component (between 0.32€/l to 0.38€/l) when compared to other actors in the supply chain. The price component in Germany is higher in relative terms with respect to Spain, despite the considerable price differences: (26-30% for Germany with respect to the 8-21% of the Spanish case). The considerable differences between Germany and Spain could be due to the higher cost structure for Germany, but also to different marketing approaches and consumer preferences that may lead to higher premium prices at the consumer level. Retailers' strategies on pricing also depend on the purchasing power of the average consumer in the country, with, in this case, German consumers having a higher purchasing power than Spanish ones.

3.3.4.2 Added value distribution in the pork supply chain Germany

The analysis of the pig meat supply chain in Germany has considered three different cuts of pig meat: fresh ham for baking (representing one of the finest cuts), minced meat (low quality cut), and tender loin (medium-high quality cut), that have a different final price at consumers level, and different price structure for processing and slaughtering. The results of the price decomposition across the supply chain are shown in Figure 18.

Figure 18. Price formation for different supply chains of pork meat in Germany (€/kg excluded VAT)



At the farmers' level of the supply chain there are no differences in prices for the three types of cuts since farmers sell the whole pig, from which those different cuts are then taken. However, as discussed in section 3.3.2, the pricing structure and value added is distributed differently depending on the cut.

For actors in the middle of the supply chain, their relative value varies. For minced meat, for example, the processor's relative value is similar to that of the ham and higher than for tenderloin (medium-quality product). In the case of the tenderloin, the higher relative value is taken by the slaughterhouse, as this is where most of the added value takes place. This indicates that the relative value given to the actors in the middle of the supply chain relates to the added value they offer to the final product. The added value is set by actors based on different factors. For the actors in the middle of the chain, the added value is linked to the additional costs they incur when processing the product, their revenue targets, and their expectation of what value the consumer will perceive and agree to pay for. Processing

costs vary depending on the type of product. There is more processing for ham or minced meat than tenderloin.

For retailers, however, their added value is set based on the price they pay for the product, and their pricing strategy. They do not have any differential costs (beyond specific product marketing) when selling different products (e.g. hams, minced meat or tenderloin). This is why retailers have more flexibility to adapt their relative value in the final price based on the purchasing power of the consumer.

The highest consumer price is for fresh ham ready for baking. For that cut (priced at 6.8 €/kg) the biggest component is the retail price, illustrating how retailers obtain higher margins for products perceived of higher quality regardless of their production cost. In the case of this product, the consumer price is nearly ten times the price paid to the farmer (1.24€/kg). In contrast, lower price margins are found for minced meat as a low-quality cut, where retailers still obtain a margin, but smaller than that of the ham. As indicated in Figure 18, the variations in the combined value of the middle actors are relatively limited (with a range lower than €2) compared to the variations in the consumers' price as set by the retailers (€4 range).

The price share of the retailer is the highest for all the three types of cuts, ranging from 42% for the tenderloin to 57% for ham. The farmer's price share (in relative terms) is conditioned by the final retail price and is, therefore, highest (16%) for minced meat, i.e. the cheapest cut.

3.3.4.3 Added value distribution in the broilers supply chains in Sweden, and The Netherlands.

The findings from a case study¹⁷¹ conducted on the Beter Leven scheme in the Netherlands, as well as those described above (dairy and pork supply chains) show that the price that slaughterhouses and the farmers will receive are negotiated in competition between retailers and as a function of market demand. In the Beter Leven broiler chain, the slaughterhouses hold some negotiating power, as they are the intermediaries between the retailers and the farmers. For farmers, the higher production costs are offset by the higher price paid by the slaughterhouses.

The distribution of added value along the food chain is a difficult issue to document precisely, due to a lack of available data, particularly regarding the manner in that added value is generated across several different products by processors and retailers. However, the evidence available is consistent with the views expressed in the industry survey, whereby 76% of respondents see retailers as the main beneficiaries of joining an animal welfare scheme label, before farmers (51%), processors (49%), slaughterhouses (38%) and transporters (18%).¹⁷²

Farmers tend to get compensated or rewarded for the higher costs of production, but it is unclear whether that compensation is sufficient or allows them to receive a better income compared to conventional products. Processors, by contrast, have opportunities to draw margins by adding value to the product, and that notably happens in relation to by-products (for dairy in particular) but also by generating different cuts for meat, which then get sold at a premium to retailers. The latter seem to be drawing the biggest margins: the examples of the German milk and pork supply chains and the Dutch broiler chains suggest that retailers have

¹⁷¹ Survey with scheme members, desk research and interviews

benefited more from the higher prices paid by consumers for higher welfare products.

Even when the price of higher welfare products has not been increased relative to conventional equivalents (as is the case for milk in Spain), it is likely that retailers have used the product sold at a low price as a means of drawing consumers to their shops, and have made margins on other products that the consumers would also purchase, besides the milk.

These findings show how the impact of any labelling initiative on value distribution depend significantly on the manner each supply chain operates. This varies extensively between sectors and Member States, as a function of the type of supplier-buyer relationships and the extent to which producers are organised or not to achieve bargaining power.

It was beyond the scope of the present study to carry out an analysis of these factors across the EU. They point, however, to the potential co-dependence of any intervention on animal welfare labelling with policies aiming to achieve better value distribution within food supply chains.

3.3.5 What are the decisive factors for business operators to adhere to animal welfare labelling schemes?

The main reasons actors mentioned for adhering to an animal welfare labelling scheme were:

- maintaining market access or accessing new markets
- obtaining a price premium and income stability
- achieving better productivity, animal health and product quality
- improving one's reputation
- contributing to improving the welfare of animals

The drivers between animal species do not vary much, but they do vary slightly across different types of businesses. However, to have a more precise picture of the motivations, large scale surveys of business operators would be necessary.

Accessing new markets, or maintaining market access is an important incentive. In some cases, producers are being asked to join the scheme by their buyers, therefore joining a label becomes the only path to selling their products to that particular processor or retailer. In the case of Welfair®, most members joined in response to retailer requests. With currently 70% of the liquid milk sold in Spain certified by the scheme, the perception by dairy farmers in Spain was that they had to join the scheme to continue operating. This is also the case for farmers that join Svensk Fågels, as they cannot sell to the Swedish slaughterhouses unless they are part of the scheme. In the case of ITW, the slaughterhouses are required to join the scheme as 85% of the retailers are participating and demanding labelled products.

For farmers, despite having additional production costs, their incentive to join the label remains an economic incentive, as they expect to be able to sell their products at a premium compared to conventional farming. Economic incentives are present both for farmers whose products benefit from a price premium at consumer level (e.g. Label Rouge, Friland), and for those who do not (e.g. Welfair®, ITW). Even in those instances where consumers are not paying a higher price, farmers still expect their higher animal welfare practices to be recognised economically by their buyers. For instance, Welfair® dairy farmers receive a

higher price from processors for implementing better animal welfare practices; the final price they receive will vary depending on the final animal welfare score given by the scheme. Similarly, ITW adherents are paid a premium per carcass by slaughterhouses, even if the price of the meat in stores may not be different to that of non-labelled products. However, as discussed in section 3.3.4, it is unclear whether that compensation is sufficient or allows them to make a profit receive a better income compared to conventional products.

Beyond a higher income, enjoying price stability is another incentive to join. Poultry farmers working with Better Leven receive a stable price negotiated yearly with the slaughterhouse, shielding them from market price fluctuations. This is also the case for the farmers working with Svensk Fågels, as their association negotiates the prices on their behalf.

Another motivation linked to improved income is better productivity in the farm. Poultry farmers working with Svenks Fågels have a higher productivity as they are allowed to have a higher stocking density (36 kg/m² instead of 20 kg/m²) if they join the scheme. This may not apply to other contexts, however, as Swedish legislation on stocking densities is more protective of animal welfare than legislation in other Member States where the EU thresholds have been kept. Therefore, there is a path for increasing densities in Sweden as a benefit from joining a scheme that may not be available in other Member States.

Improved animal health and product quality are common reasons across operators (farmers, processors and slaughterhouses) to join a scheme. In the interviews, farmers across labels mentioned the audits carried out by the schemes, and indicated that the biosecurity requirements have led to improved animal health, early detection of illnesses and reduced mortality. Slaughterhouses and processors interviewed working with Svenks Fagel, Better Leven and Welfair® agreed that belonging to a scheme allowed them to receive high quality produce. They trusted the audits carried out by the labelling schemes, which provided quality assurance.

Adhering to a scheme label was associated with a better reputation, as mentioned by all stakeholders in the case studies. For example, adherents to Beter Leven explained that the label is the best programme available in the Netherlands, with a good technical level, high level of welfare and animal health, and it is recognised by consumers.

Contributing to animal welfare was a decisive factor for some producers as well. Farmers in particular from Denmark and the Netherlands mentioned a desire to produce according to higher animal welfare standards as reasons for joining.

Finally, other reasons mentioned by different actors were: supporting the environment and the animals, having a sense of pride amongst the workers, a better working environment and better use of workers' time.

These combined reasons for joining schemes are reflected in the demand experienced but not yet met by a number of labelling schemes. In Denmark, for example, there is a waiting list of farmers willing to join Bedre Dyrevelfærd, as the label assumes that there is not enough demand to increase the production under the label. Waiting lists are also found in other countries and sectors, for instance for organic pig meat in France. They indicate the appeal of labelled products for producers, but they also show constraints on growing the market for higher welfare pork meat. This appears to be an issue for pig meat principally, but also broiler meat to some extent.

There is a combination of factors leading business operators to join schemes. The factors mentioned are similar across sectors, but they are likely to vary from one business operator to another. The main factors are market access; receiving a price premium and income stability; product quality and animal health; improved reputation; and contribution to animal welfare. For some operators, joining the schemes is a matter of necessity if their primary buyers request it from them. For

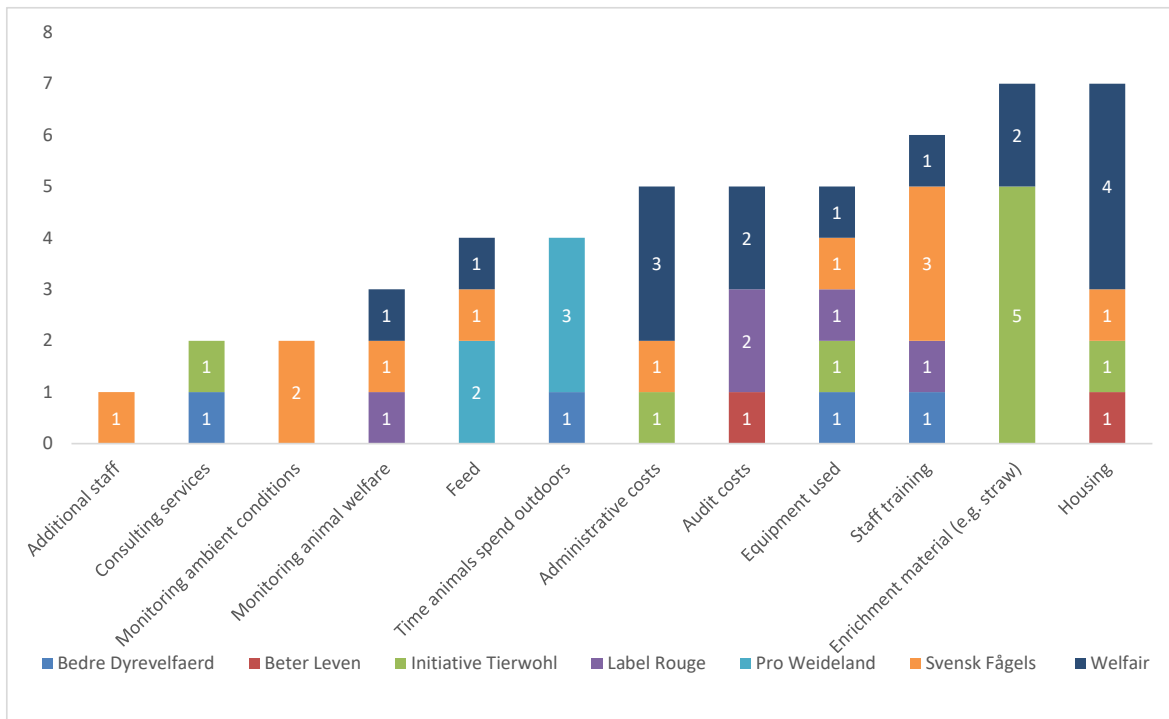
others, it is a market choice, where they expect to diversify their market or generate higher and more stable income. This suggests that, in a context of a potential EU labelling initiative with “voluntary” features, the level of take-up would likely depend heavily not only on economic benefits to operators but also on the manner operators with a leading influence on supply chains (i.e. large processors and retailers) support the initiative. Concerns about the ability of the market to absorb the production of higher welfare products would also need to be addressed to encourage more operators to join.

3.3.6 Which changes are the most difficult to implement to adhere to animal welfare labelling schemes (conversion costs, investment costs, operational costs, staff qualification, environmental rules, etc.)?

The most difficult changes to implement to adhere to animal welfare labelling schemes vary per label. Some animal welfare labelling scheme requirements are very specific to the animal species, whereas others are specific to the production system. The challenges discussed range from investments (buildings) to operating costs (enrichment materials). All of the schemes incur audit and administrative costs.

The scheme members’ survey provides indications from a relatively limited sample of respondents, and as such would need to be completed with further research. Nevertheless, the responses received indicate that the most difficult changes to implement were related to farming practices (e.g. the provision of enrichment material) or infrastructure (e.g. changes to housing). Other changes mentioned were staff training, audit costs and equipment costs. More specifically and for illustrative purposes, 4 Welfair® members emphasised changes to housing, and 3 mentioned administrative costs; and 5 ITW members mentioned enrichment materials. It should be noted that only 45 scheme members answered this question out of the 86 respondents. Further research would be required to understand whether this is because other respondents did not have to make any changes, or because they did not find them challenging.

Figure 19. What changes were the most difficult for your organisation to comply with the scheme?



Source: Scheme members survey

For the three sectors on which the case studies focused (dairy, poultry and pigs), the most challenging changes relate to the initial investment in infrastructure, and then audit costs or administrative costs. For slaughterhouses or processors, the most difficult change to implement relates to traceability. For example, a slaughterhouse needs to keep two separate production lines for labelled and non-labelled products. To remain highly productive, they would need the volume of labelled meat processed to be similar to the volume of conventional meat, which is not the case. The following case study vignettes provide numerous examples that illustrate the challenges that operators referenced in the context of the case studies.

- Interviews with Beter Leven farmers show that the most difficult change for them is related to changing the housing for the chicken. Farmers are required to install a covered run (veranda) as this is a mandatory requirement for Level 1 (the lowest animal welfare requirements) in Beter Leven. This change requires first licenses which are difficult to obtain (the veranda may have environmental impacts), and second the investment required for building. Other operators working with Beter Leven mentioned implementing the scheme's traceability requirements as a challenge.
- The case of Svenks Fagels is different as only new farmers can join the scheme. Established farmers who are not already part of the scheme (0.8% of existing farmers in Sweden) and use old buildings and practices would not have the capacity to build new housing to adhere to the scheme (it is difficult to convert very old buildings or other types of farm buildings into the schemes' requirements; similar challenges apply to established French broiler farmers who would want to transition to Label Rouge).

- The dairy industry discussed changes to infrastructure, such as building more drinkers, more spaces for resting or increasing the space allowance per animal as areas that require high investments. This was mentioned by Welfair® and Pro Weideland farmers. For processors, Welfair® members mentioned the costs of audit as the highest cost of joining the scheme and ensuring the traceability of their production line as the second biggest challenge. The traceability costs only impact those processors working with both labelled and non-labelled dairy products.
- In Germany, ITW farmers mentioned the changes to existing buildings required as a consequence of adhering to the scheme. ITW requires all buildings to enable daylight to enter. This can imply a very costly modification to old buildings. The second biggest change discussed was the provision of materials for enrichment, as this can imply less space for growing pigs, leading to a lower productivity. Other operators working with ITW mentioned the traceability of products and ensuring the production lines are separate as another source of costs.
- In Denmark, for both labels, the most challenging costs for the farmers are related to investments in the farm to adapt it to the schemes' criteria. For transport, as member farms often produce fewer pigs than those who are not, transporters need to visit more farms to load at full capacity. Further, there are only two slaughterhouses that work with high animal welfare pigs, meaning that they sometimes have to travel longer distances to transport the animals between the farms and the slaughterhouse. Finally, slaughterhouses need to ensure the traceability of the different products, so they have to be processed in separate production lines.

Challenges vary from one label to another, reflecting the particular requirements of the label (e.g. the provision of a veranda for broilers), which are themselves highly species specific. For example, enrichment is a challenge for pig farmers principally. Another example is access to the outdoors, which may be a challenge for dairy farmers who are adhering to a scheme requesting this, if the normal practice was to keep cows indoors. There are common challenges, however, such as audit costs and administrative costs associated with membership. This implies that an EU animal welfare label would have a common set of impacts, but it would also have highly species-specific impacts that would need to be assessed sector by sector.

3.3.7 What are the costs and benefits of each of the analysed schemes, for the different actors concerned (consumers, business operators, public authorities etc.)? Are benefits/costs equally distributed across the value chain?

A typology of costs and benefits for the different actors concerned is outlined, summarising the evidence collected across the surveys, case studies, and desk research. These costs and benefits cannot all be monetized and include for instance the provision of information to consumers to make informed choices. As for the distribution of monetizable, economic costs and benefits, those are partially documented in sections 3.3.3. and 3.3.4 and are not repeated in this section. There are major obstacles to the determination of the manner those costs, and benefits are distributed, due to the absence of reliable data beyond the primary production stage of the value chain. Unfortunately, the study has not been able to find data on the costs and benefits incurred by public authorities when managing an animal welfare labelling scheme.

The answer is structured into four sections, always discussing the costs and benefits for each actor. The first discusses the costs and benefits of managing a labelling scheme; the

second discusses those incurred by businesses that adhere to the schemes; the third discusses those incurred by adherents, and the fourth summarises the costs and benefits for consumers. The answer then summarises whether these have been equally distributed along the value chain.

Labelling scheme management costs and benefits

The majority of the gross costs of managing or running animal welfare schemes would be borne by the scheme owner, though, in some cases, they would also receive economic benefits for managing these schemes in terms of membership fees. Various designs lead to various distributions of the costs between scheme owner, third party, accreditation body, and operators. The cost categories incurred by the labels are summarised in Table 16.

Table 16. Cost categories for managing to a label

Type of Cost	Description of costs
Registration costs	Costs related to the administrative process for new members to join, including providing information to new members, ensuring they meet the selection criteria, and managing the fees among other costs
Monitoring costs	Collecting data on compliance through self-audits, audits carried out by the scheme owner, or audits performed by a third party; supervision of the accredited Certification Bodies. Costs for processing the data and any follow up actions prescribed by the scheme, such as changes to audit frequencies and enforcement
Governance costs	Costs to develop the standard and update it over time, as well as evaluations of its performance
Support costs	Offering training services or other support to members
Communication costs	Labelling related costs such as the design of the label, marketing of the label amongst consumers and industry. Website development and other communication materials.
Administration costs	To manage the scheme.

In terms of personnel, this ranges by label, as shown in Table 17:

Table 17. Personnel costs per label

Label	Personnel employed and main responsibilities	Number of members	FTE / N. of farmer members ¹⁷³
Beter Leven	Managed by two organisations: <ul style="list-style-type: none"> The Dutch Society for the Protection of Animals (SPA) (NGO) has seven full time equivalent The Beter Leven label Foundation that manages the auditing side of the label, 	179 farmers (173 with 1 star and 6 with 3 stars) 14 slaughterhouses /processors 629 secondary businesses ¹⁷⁴	0.04

¹⁷³ These numbers are not comparable as the study is missing data on whether services are outsourced, and the responsibilities of each management structure.

¹⁷⁴ This can include dairy or egg packers, processors, food service, butcher, retailer, web shop, restaurant, or logistics service provider

	including the (unannounced) audits. The audits are paid for by the organisation from the money raised through participants' annual fees. The annual turnover is 2 million euros.		
Bedre Dyrevelfærd	No data available	180 pig farmers as members 32 with two stars and 148 with three stars	
Friland	No data available		
Initiative Tierwohl (ITW)	35 full time equivalent to conduct the audits, maintain the database, and manage the label.	7,7728 pig farmers 2,700 poultry farmers 83 auditors	0.003
Label Rouge	No data available	4,250 farmers	
ProWeidland (Haltungsform)	Two full time equivalent	1,880 dairy farmers	0.001
Svensk Fågels	One full time equivalent to manage the label (audit costs are incurred by the members)	120 farms	0.008
Welfair®	Five full time equivalent: the scheme manager and a support person, two technical staff members, and one admin position. There are also five lead auditors subcontracted part time.	6,000 farmers 20 certification companies	0.002

The personnel costs data shows that, at a minimum, all schemes require more than one full time equivalent (FTE) to manage the scheme. This would involve managing new member subscriptions, ensuring audits are taking place, reviewing the label requirements and making them clear for new members, and in some cases, marketing activities to raise awareness of the label. In some cases, administrative costs could include monitoring arrangements to assess the impact of its label. However, it seems that most schemes do not carry out any internal monitoring and evaluation activities.

While data is limited in terms of the benefits discussed for the label scheme managers, the benefits mentioned during the interviews carried out for the case studies, and the surveys were: meeting increased consumer demand for animal welfare labelled products, accessing new markets (particularly those labels led by industry) and supporting industry to contribute to animal welfare for those labels led by NGOs. The benefits discussed varied depending on the label's management. For example, for Beter Leven, SPA focused on working with industry to improve animal welfare, improve industry's reputation and meet consumer demands. However, for retailer led initiatives in Germany such as ITW or Haltungsform, the benefits obtained are commercial, as they are responding to consumers demand, improving consumers' trust and understanding of the labels, and preserving their reputation. In the process, they are also integrating further their supply chain. Finally, other labels are responding to food businesses requests for a certification (e.g. Welfair®).

Costs borne by adherents

The impact of joining an animal welfare scheme on operators can vary greatly from one operator to another and from one scheme to another (as standards differ). The costs of adhering to any scheme can be distinguished into one-off and recurring costs. One-off costs refer to any investments or activities undertaken once to adapt the company's practices and processes to the scheme requirements. They are incurred when the company joins the scheme or when the scheme requirements change. Recurring costs are those additional costs incurred regularly to comply with the scheme requirements. Furthermore, the costs can be categorised into:

- **Adjustment costs:** changes in production costs because of technical changes to meet the scheme requirements.
 - They include one-off costs to adapt the facilities to the new requirements (e.g. investments in improved housing conditions, or different slaughter areas).
 - They also refer to recurring costs due to changes in production practices (e.g. additional veterinary services, or changes in feed or energy costs).
- **Administrative costs:** refer to administrative/service costs that companies incur to comply with the requirements of the label.
 - These costs can be one-off costs such as initial registrations costs, investment in training staff members, external advisory services, or new processes or technologies for documenting practices or outcomes.
 - There are also recurring administrative costs, such as additional audit costs, new internal audit personnel or office material.

Table below includes a summary of the type of costs adherents incur per category:

Table 18. Type of costs of adhering to a label

	Adjustment costs	Administrative costs
One-off costs	New equipment, changes in housing/buildings, other changes to infrastructure	Consultants, new technology, up-front training requirements
Recurring costs	Feed, energy, veterinary costs, added costs of new farming practices	Audit costs (internal or external), additional administrative costs, training costs, additional personnel to carry out additional administrative tasks

These higher costs are related to investments to adapt their farms to the new requirements (one-off costs such as new equipment or new infrastructure) and higher operating costs for some of the schemes (such as higher recurring feed costs or energy costs). In some cases, additional auditing or administrative costs are also important. For some schemes, the higher costs are only incurred by new joiners.

Case study data shows that in most cases, adjustment costs linked to changes in farming practices (one-off and recurring operating costs) are mostly borne by the farmers. Administrative costs, such as auditing and membership fees, tend to be incurred by other operators, such as slaughterhouses, processors or retailers. Qualitative data from the case studies show that some transporters incur higher costs as it takes them more trips to fill their trucks, and, sometimes, they are required to transport the animals to a specific location as not all are suitable for processing the animals or the products.

The impact on costs for food processors will vary depending on the labelling requirements, and differences in animal conditions. Processors and slaughterhouses often require having clear tracing and separation of products during their operations, unless they only process

labelled products from the same scheme and tier. This requires slaughterhouses or processors to, for example, process different types of products separately.

Table 19 provides a qualitative commentary on the type of costs borne by each label

Table 19. Summary of qualitative costs borne by each label

Label ¹⁷⁵	Adjustment Costs	Administrative costs
Bedre Dyrevelfærd	<p>One off: [farmers] improvements to the farm to adapt to the requirements. New buildings and recurring production costs in terms of labour and feed</p> <p>Recurring: [farmers] additional labour costs</p> <p>[transporters] requires longer transport as there is only one slaughterhouse available</p> <p>[slaughterhouse] traceability</p>	<p>One off: [farmers] initial audit</p> <p>Recurring: annual audits</p>
Friland	<p>One off: [farmers] improvements to the farm to adapt to the requirements</p> <p>Recurring: [farmers] additional labour costs</p> <p>[transporters] requires longer transport as there is only one slaughterhouse available</p> <p>[slaughterhouse] traceability</p>	<p>One off: [farmers] initial audit</p> <p>Recurring: regular audits</p>
Initiative Tierwohl (ITW)	<p>One off: [farmer and slaughterhouse] improvements to existing building, with some farmers needing to make a high initial investment to adapt their farm to the new practices.</p> <p>Recurring: [farmer] labour, equipment, feed (between €5.44 and €6.08 per pig); [slaughterhouse] changes in production capacity (between €0.30 and €0.45 per pig).</p>	<p>One off: [farmer and slaughterhouse] initial audit (€450 for the farmer and €500 for the slaughterhouse).</p> <p>Recurring: [farmer and slaughterhouse] audits (€450 for the farmer and €1,500 for the slaughterhouse).</p> <p>[retailer] spot audits for farmers.</p>
Beter Leven	<p>One off: [for farmers] licensing and upfront investment (a covered run (veranda)); and adapting the housing equipment (e.g. drinkers etc. in line with the lower animal density of 25kg/m² and heating).</p> <p>Recurring: [for farmers] Increased heating costs; purchasing different day-old chicks (slower growing chicken breed, Hubbard birds); feed (plant-based and supplemental grain); additional environmental enrichment (strawbales).</p>	<p>One off: n/a</p> <p>Recurring: [all members] audit costs¹⁷⁶</p> <p>[all members except farmers] membership fees¹⁷⁷; licensing costs to use the logo;</p>

¹⁷⁵ The details for the remaining labels will be included in the draft final report

¹⁷⁶ Between €100-150 euros for each audit. There is one planned audit per year.

¹⁷⁷ Based on the product item they sell. The fees pay for the unnuanced audits (one per year)

Label Rouge	<p>One off: one-off investment to set up the farm.</p> <p>Recurring: [farmer] higher production costs (feed, inputs, investments), that represent 8% higher costs than conventional production (feed is the highest cost differential). [hatcheries] lower productivity.</p>	<p>One off: none.</p> <p>Recurring: [farmer] membership fee</p>
Svensk Fågels	<p>One off: one-off investment costs for new farmers joining the scheme</p> <p>Recurring: n/a</p>	<p>One off: membership fee¹⁷⁸</p> <p>Recurring costs: annual service fee (for audits and monitoring)¹⁷⁹</p>
ProWeidland (Haltungsform)	<p>One off: [farmer] improvements to existing infrastructure and outdoor areas</p> <p>[processor and transport] changes to ensure traceability of milk</p> <p>Recurring: [farmer] ongoing maintenance of farm (higher labour, higher feed costs (non-GMO) and more expensive silage harvest for the winter feed)</p> <p>[processor and transport] ongoing maintenance costs to ensure traceability of milk.</p>	<p>One off: [processor and transport] administrative changes to ensure traceability of milk</p> <p>Recurring: audits</p>
Welfair® ¹⁸⁰	<p>One off: [for farmers] improvements to existing infrastructure and outdoor areas</p> <p>Recurring: [for farmers] improvements to farm infrastructure. Case study interviews show that these costs can range from 0.5% to 5% of the total production costs, except one large farm that reinvests 10% on farm improvements (including animal welfare related ones).</p>	<p>One off: n/a</p> <p>Recurring: audit costs for farms.</p> <p>Audit and traceability costs for process-ors – anecdotal evidence shows that it can be up to 2.4% of their total costs.</p>

Benefits for adherents

The case studies identified the benefits for the operators of joining a scheme. The main benefits mentioned were threefold: increased prices, improved product quality and better reputation. There is no indication in the case studies, the literature^{181,182}, or a review of 51 labels bearing animal welfare claims that schemes offer specific financial incentives for operators to join (i.e., incentives distinct from premiums paid for the products). The common benefits are:

- **linked to price**, such as receiving a price premium relative to the prices paid to non-adherents; or having access to new markets, targeting consumers willing to pay for higher welfare products. These can also be price stability/buffer against market

¹⁷⁸ Based on farm size

¹⁷⁹ Based on per day-old chicken delivered to the farmer

¹⁸⁰ Difficult to assess as requirements are based on animal outcomes, not changes to the farm

¹⁸¹ Arcadia International (2021) Research Paper: Implementation of EU legislation on 'on-farm' animal welfare. Potential EU added value from the introduction of animal welfare labelling requirements at EU level.

¹⁸² European Parliamentary Research Service (2021) Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level.

fluctuations. The literature mentions the possibility of farmers receiving subsidies to those going above and beyond animal welfare legislation (e.g. CAP Pillar II payments), though this has not been documented in the case studies.

- **linked to product quality**, where improved farming conditions lead to better animal health, less mortality, better product quality and, sometimes, improved productivity.
- **other benefits** such as improved brand image/reputation or better working conditions for staff.

Table 20 summarises the benefits identified by the members for each of the labels on the case study

Table 20. Summary of benefits for each label

Label ¹⁸³	Benefits
Bedre Dyrevelfærd	<ul style="list-style-type: none"> • Price premium for farmers from the slaughterhouse (€0.03 additional per kilo) • Better reputation • Market access
Friland	<ul style="list-style-type: none"> • Price premium for farmers from the slaughterhouse (€0.03 additional per kilo) • Better reputation • Market access
Initiative Tierwohl (ITW)	<ul style="list-style-type: none"> • Income stability • Better productivity linked to improved animal health. Slaughterhouses mentioned the guaranteed supply of healthy and good quality meat. • Better reputation • Access to markets was mentioned by retailers, as they use the label as a marketing instrument.
Beter Leven	<ul style="list-style-type: none"> • Better productivity as there is a limited supply of the product: higher welfare chicken. This provides income security and stability. • The additional costs of production for Beter Leven chicken are compensated by the slaughterhouses/processors. Views from slaughterhouses/processors, expressed via the survey indicated that the increase in (paid) price for the Beter Leven chicken is essential to offset the higher production costs. Although the overall benefits from higher prices (about +30% according to the survey) is negated, as these are offset by the higher costs (also about +30%). • Other benefits reported: improved reputation, security and reliability of markets.
Label Rouge	<ul style="list-style-type: none"> • Higher price and access to markets
Svensk Fågels	<ul style="list-style-type: none"> • Price stability as operators are affiliated to a large association, that is regularly audited, and because the price to the farmer is set at regional level in conversations between slaughterhouses, meat processing company and farmers' representatives at regional level.

¹⁸³ The details for the remaining labels will be included in the draft final report

Label ¹⁸³	Benefits
	<ul style="list-style-type: none"> • Better productivity as farmers are allowed to have a higher stocking density¹⁸⁴. Also, improved animal health thanks to the label requirements (animal welfare and biosecurity) and controls, which improves productivity. The label offers advisory support services • Other benefits include improved reputation of being associated with a trusted label, improved animal welfare and food safety
ProWeidland (Haltungsform)	<ul style="list-style-type: none"> • Price premium (€0.01 additional per litre) (though farmers claim it does not offset the additional costs). For processors, it is about access to markets that demand higher animal welfare • Improved animal health and productivity • Better reputation
Welfair®	<ul style="list-style-type: none"> • Higher price offered by the processor and access to markets demanding higher animal welfare • Better productivity linked to improved animal health • Better reputation

Costs and benefits for consumers

Consumers' costs and benefits have been discussed in prior sections, particularly in sections 3.1 and 3.3.1.

There is a higher price paid for some of the labelled products. 6 out of 8 of the studied products have a price premium at consumer level. As discussed earlier, this is due to a variety of factors, including but not limited to production costs.

Consumers demand to receive information on the conditions under which farmed animals are kept and treated is strong, even while taking into account potential social desirability bias in respondents' answers. Existing labels are meeting consumers' demand for better information on animal welfare in those Member States where there are labels present. In the 16 Member States where no dedicated labelling schemes with animal welfare claims are found, this demand is not met.

Schemes in the EU currently also offer guarantees to consumers in terms of higher food quality, food safety and higher animal welfare standards. The guarantees offered to consumers, however, vary vastly from one scheme to another. The structure of audits on scheme members follows a common pattern but varied in terms of the specific types of audits and frequencies. It can be challenging for consumers to understand the precise nature of scheme guarantees based on the information available on their website. This indicates that the current state of play is one of considerable diversity, providing consumers different levels of information and guarantees depending on where they are in the EU and what labels they have access to when purchasing food.

Distribution of benefits/costs across the value chain

As has been discussed in section 3.3.4, the data available on costs and margins beyond the primary production step of the supply chain are very limited. On that basis, it is inherently difficult to provide a very firm answer on the manner the benefits and costs are distributed across the value chain. Nevertheless, as discussed earlier, it is reasonable to assume that costs and benefits are generally not distributed equally along the supply chain. Instead, while the evidence suggests that producers often are generally breaking even, processors and retailers are likely benefiting more, largely by drawing higher margins from by-products

¹⁸⁴ 36 kg/m² instead of 20 kg/m²

of the primary product (e.g. cheese or fruit yoghurts from dairy milk, or better cuts and processed meat products from an animal's carcass). These strategies often do not take into account the production costs. Case studies also illustrate that primary producers often recover the production costs, however, the margin obtained is often the smallest across the actors in the value chain. Some actors interviewed argue that labels are a way for producers to remain in operation in the face of market pressures and competition rather than to make a better living. This is particularly relevant for dairy producers in some Member States.

To conclude, for scheme owners, the costs of managing or running animal welfare schemes are registration costs, monitoring costs, governance costs, and support costs. These are often borne by the scheme owner, although alternative designs exist. The benefits are often market coverage and improved access to new markets, supply chain integration and control (in particular for retailers), meeting consumer demands and food safety.

For adherents, the common costs are adjustment costs (changes in production costs directly linked to changes in technical practices to meet the scheme requirements) and administrative/service costs (those that companies incur to comply with the requirements of the label). The costs of joining an animal welfare scheme will vary by type of business and from one scheme to another (as standards differ). These tend to be higher than conventional production costs, and relate to initial investments (for some) and higher operating costs (such as feed or energy costs). For adherents, benefits are linked to price, product quality, and other benefits such as improved brand image/reputation or better working conditions for staff.

Consumers' costs and benefits have been discussed in prior sections. Overall, the costs for consumers are a price premium on some products. The benefits are access to information enabling them to make an informed choice when shopping, as well as benefiting from improved product quality, and food safety.

Finally, the distribution of costs and benefits across the chain is difficult to establish. Analysis based on the data obtained shows that farmers obtain the smallest margin of the added value, while retailers obtain the largest one. However, the size of the margin obtained by different actors depends on the supply chain governance as well.

3.3.8 Do existing labelling schemes on animal welfare deal with applicants from other countries, including non-EU countries? If yes, how?

Based on a mapping of labels bearing animal welfare claims found in the EU and the UK, a majority (22 out of 38) do not offer membership to producers from other countries than that in which the label is based, though there were gaps in the data where schemes' stance on this was not found¹⁸⁵. These restrictions are linked to the fact that most of those schemes operate as origin labelling schemes too. The study also found that six schemes operate internationally and accommodate applicants from various countries. There are also an additional ten labels that accept applicants from other countries to sell their produce with their label.

Several of the labels do not accept applicants from other countries, because they operate as origin labels too (for example, Red Tractor, Friland, IAWS Interporc, Svenskt Sigill, Svenska Ägg Omsorgsprogram, Naturafarm and TerraSuisse). As noted in 3.1.14, the fact

¹⁸⁵ Of the 51 labels mapped, clear information was available for 38 of them.

that the scheme applied only to national producers was promoted by the scheme as a specific benefit for consumers of products carrying the label. Carnes Valles de Esla in Spain was is brand applicable to cattle farmed by the business itself in a specific region of Spain, and Bio-Fisch in Austria has its own organic fish farming operations within the country.

The ten animal welfare labels (operating in one country only) that were open to applicants from other countries operated in different ways. The mandatory method-of-production label for table eggs required in the EU (Regulation (EC) No 589/2008) applies to products imported into the EU as well as eggs produced within the EU. Unless there is a guarantee that they have been produced in line with EU production standards, they have to include a description of the farming method as 'non-EC standard'. A Portuguese label – Cuidamos do Bem-Estar Animal – was affiliated with a specific brand that itself had operations in Poland and Columbia as well as Portugal, therefore the brand's producers and slaughterhouses in these countries were also subject to the same animal welfare requirements.

Other schemes tended to be open to producers from other countries providing they complied with the scheme's own standard. For example, organic products imported in the EU can use the EU organic label, providing that they conformed to EU-standards. Likewise, the Danish scheme *Anbefalet af Dyrenes Beskyttelse* allowed producers outside of Denmark to partake in the scheme if they complied with its welfare requirements, to be audited by an independent inspection body annually. Membership to the scheme was typically granted if the producer was already recognised by another scheme administered by a European animal welfare organisation (such as *Beter Leven* in the Netherlands). The *Welfair*® scheme in Spain similarly allowed members from outside of the country if they met the scheme criteria. However, the *Welfair*® case study highlights some nuances in the way that this scheme handles producers in other countries. Specifically, in third countries where animal welfare legislation differs from the EU's, producers must comply with the *Welfair*® requirements. They are then offered two options: they can obtain the *Welfair*® label for use on their exports to Europe, in which case they must comply with EU animal welfare legislation; or, alternatively, they can choose to use the label only locally, in which case they must comply only with local regulations as a prerequisite. The motive for offering non-EU producers these dual options was to encourage welfare improvements.

Nevertheless, as discussed in section 3.1.14, there are a number of challenges to animal welfare labels accepting applicants from other countries. First, the criteria used to define animal welfare varies from country to country. As the *Welfair*® case shows, the scheme offers two routes: members can use the label in their own country only, or they have to comply with the same requirements as Spanish products to export to Europe. Secondly, if a scheme accepts an operator from another country, it must administer controls and enforcement procedures on that operator to verify their compliance with scheme criteria. This poses a geographical challenge, as animal welfare requirements have to be verified on-site. This implies the scheme may need to identify auditors based in that country or require its own auditors to travel to the country, both of which have administrative and cost implications. Finally, the administrative burden for schemes accepting operators from outside their country is high, such as language barriers, geographical challenges or increased paperwork.

Overall, many animal welfare labelling schemes do not grant membership to their scheme to producers from other countries. This is because those schemes also include geographical origin claims and because of the inherent challenges of carrying out audit controls in a third country. Where schemes allow producers in other countries to participate in their scheme, this can be managed in different ways but there is typically a requirement that they have to meet the schemes' own criteria for animal welfare. It should be noted that all animal welfare audits and controls must occur on-site, as there is no other way of verifying them. These

findings point to the current limitations imposed on producers by the frequent – though not systematic – integration of animal welfare claims with origin claims. They also point to the feasibility of establishing a scheme that would also apply to imported products as well as products from the EU.

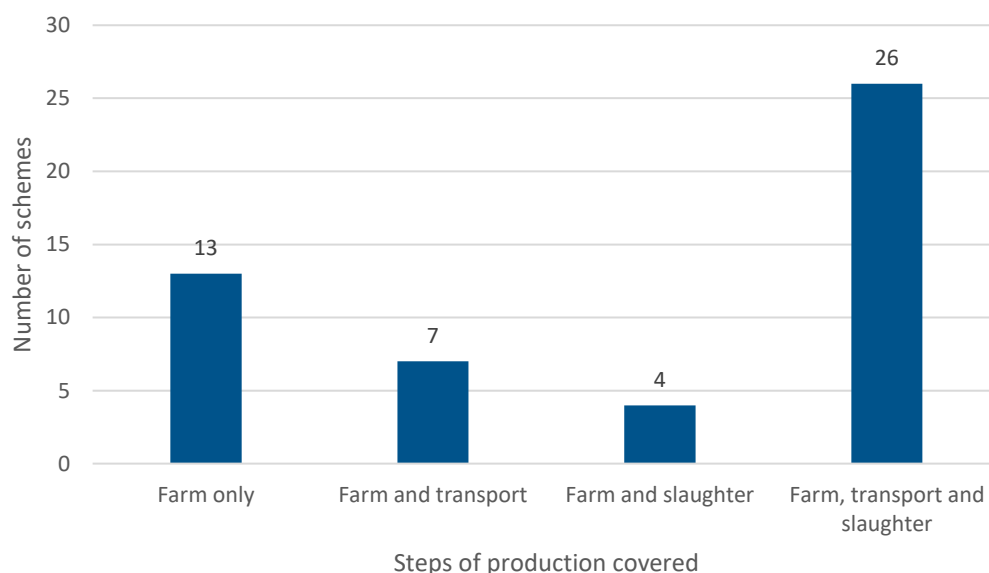
3.4 Do current labelling schemes on animal welfare contribute to improve the welfare of animals? If so, to which extent?

3.4.1 To which extent labelling schemes cover the duration of life of animals until death?

A mapping of labelling schemes bearing animal welfare claims present in Europe shows that they provide different levels of coverage of the duration of an animal’s life. These range from the full lifecycle (farming activities, transport, and slaughter procedures) to covering only on-farm related criteria. The labelling schemes vary in their breadth as to whether they cover slaughter or transport procedures as well as farming activities or a combination.

Half (26) of the schemes documented cover the duration of life of animals until death to some extent (on-farm activities, transport, and slaughter procedures). The remaining schemes vary in their breadth as to whether they cover slaughter or transport procedures as well as farming activities. Most of them cover only on-farm procedures (13), whereas 7 cover farm and transport, and 4 cover farm and slaughter as shown in Figure 20.

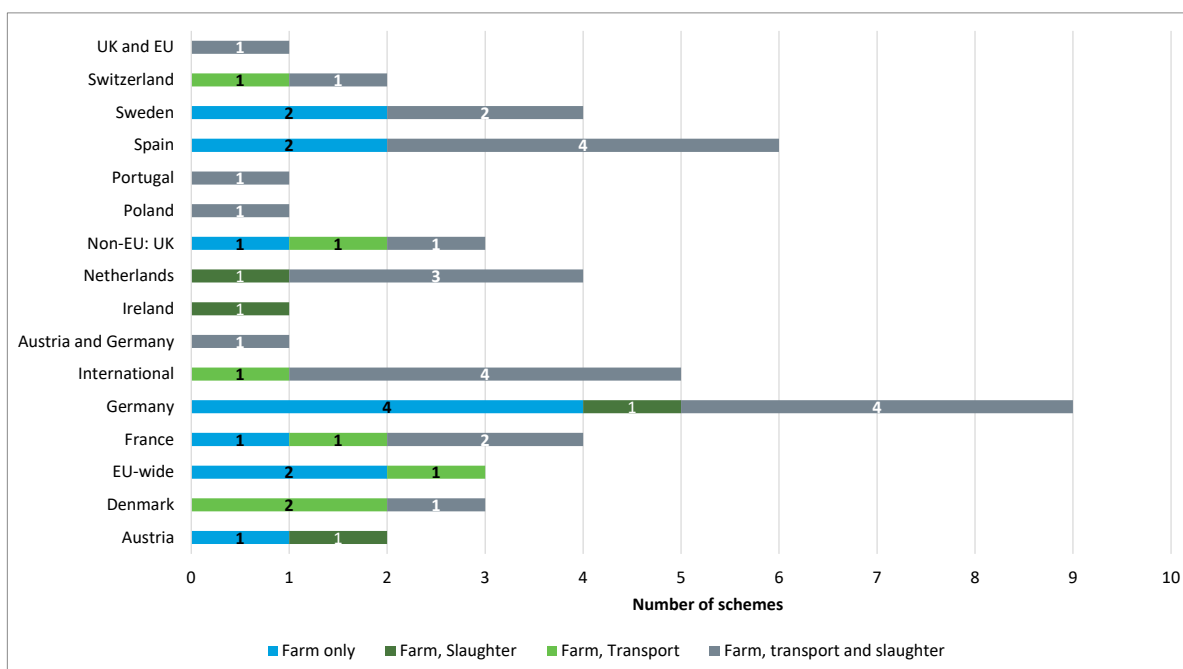
Figure 20. Total representation of animal lifecycle stages (n=50)¹⁸⁶



Germany is the country with the most labels, with half of them (4) covering only on-farm practices, and the other half (4) covering the full duration of the animal’s lifecycle (on-farm practices, transport and slaughter). The breakdown per country is shown in Figure 21.

¹⁸⁶ Base size is 50 labels as data was not available for all the schemes mapped

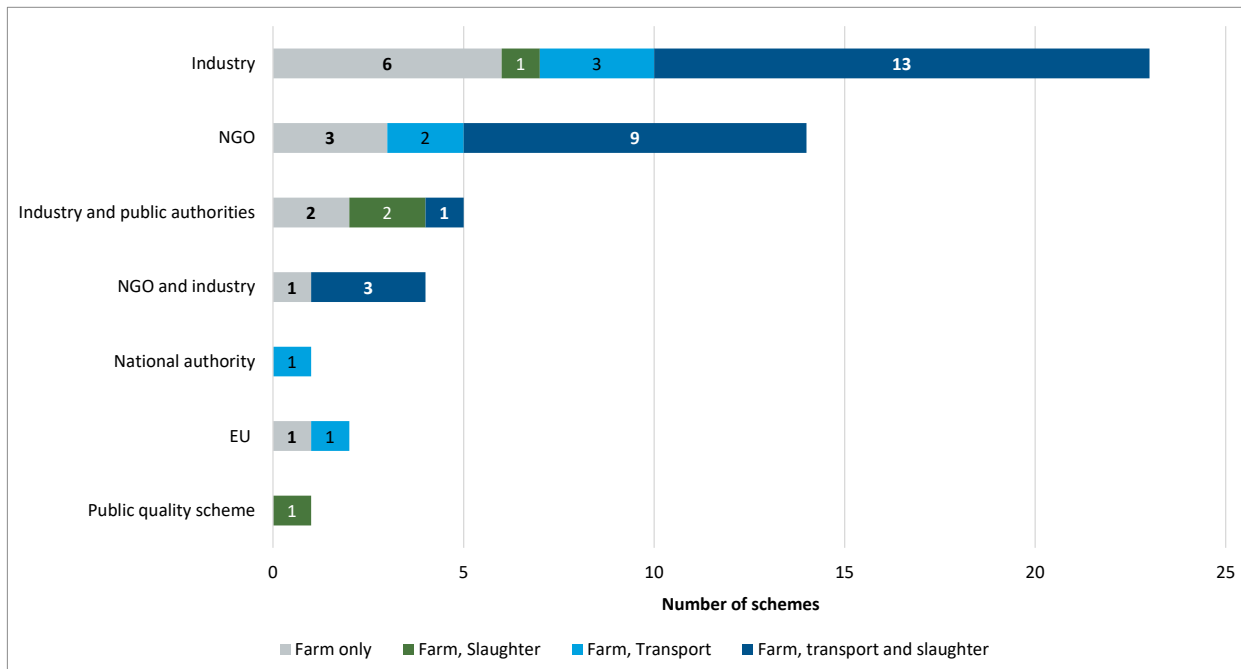
Figure 21. Coverage of animal lifecycle stage by Member State (n=50)¹⁸⁷



From another perspective, 35% of the labels that cover the duration of the animal’s life (on-farm practices, transport and slaughter) are led by NGOs, and 50% are led by the private sector (a business organisation). Private sector led labels include all the steps of production, with 6 of them covering farm only practices, one label covering farm and slaughter, 3 farm and transport practices and 13 labels covering the animals’ life production cycle. This is shown in Figure 22.

¹⁸⁷ Base size is 52 labels as data was not available for all the schemes mapped

Figure 22. 1 Coverage of an animal's life by type of organisation running the scheme (n=50 as data was not available for all schemes)



A significant proportion of existing labelling schemes found in Europe cover the full duration of life of animals until their death, incorporating standards for welfare on-farm, during transport, and at slaughter. As such, there are precedents for the potential introduction of an EU level scheme covering all stages.

3.4.2 To which extent labelling schemes cover the various farming species and types of production (e.g. dairy, eggs, beef meat, broilers, etc.)?

The labelling schemes bearing animal welfare claims found in Europe cover a broad range of farming species and types of production. The analysis of the data focused on coverage of farmed species, as defined by the Council Directive 98/58/EC¹⁸⁸. 24 schemes cover five or more species. In total, there are 16 species and 19 methods of production covered by the schemes included in the mapping¹⁸⁹. Two EU wide schemes (Agriculture Biologique and European Organic Certification) cover all species produced according to organic standards. As they do not specify the species covered, they have not been included in the analysis below. Further, Haltungsform, as an umbrella label in Germany, does not specify the species covered either and is not included in the analysis below.

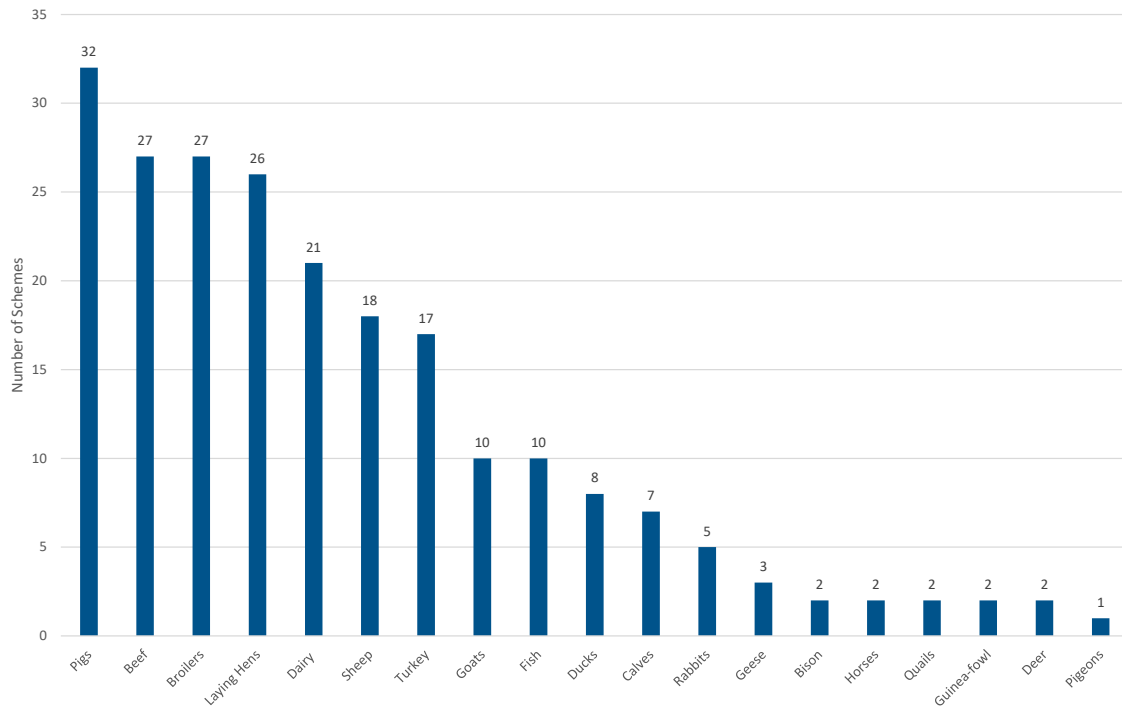
Pigs, beef cattle, dairy, laying hens and other poultry are the main species covered by schemes in Europe: 29% of the schemes cover all of these species. The species most frequently covered were pigs with 32 schemes, followed by beef cattle and broilers with 27 schemes respectively, laying hens with 26 schemes, dairy with 21 schemes, sheep with 18, and turkey with 17 (see Figure 23 and Figure 24). The least covered species are bison, horses, pigeons, quails, and guinea fowl. These species appear to be covered most by

¹⁸⁸ Farmed animals are any animal species that is bred or kept for production of food, wool, skin, fur or for other farming purposes.

¹⁸⁹ Base size 48

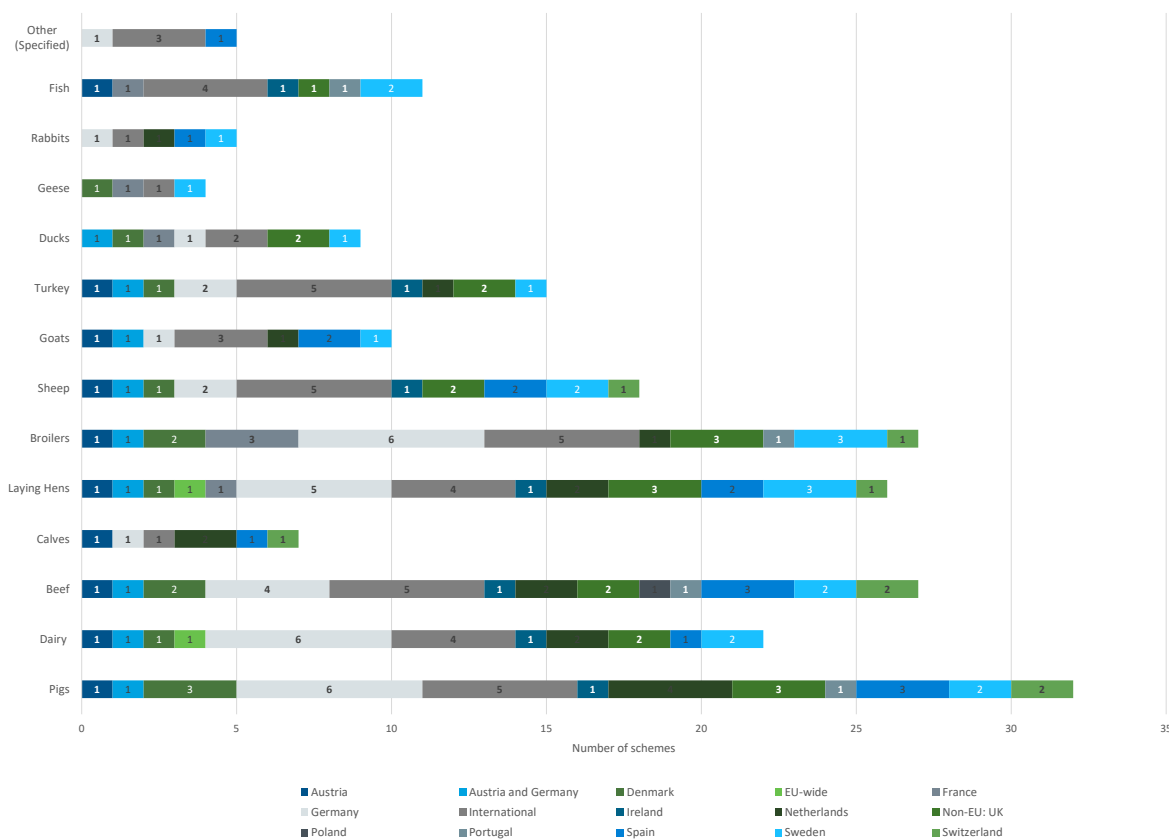
French and international schemes. This aligns broadly with the scale at which those species are farmed in the EU.

Figure 23. Total number of times species are represented by schemes¹⁹⁰



¹⁹⁰ Base size 48

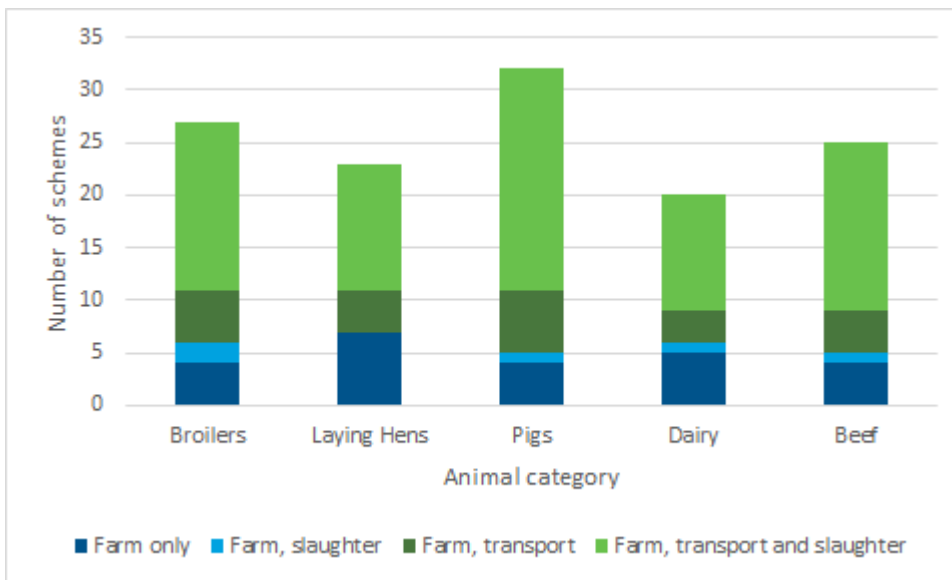
Figure 24. Number of times species are covered by schemes by member state (n=225)



14 of the labels only cover one species. Three labels focus solely on pigs, four on laying hens, two on dairy, two on beef cattle, two on fish and one on poultry. Spain, Germany and the Netherlands have the most single species focused schemes. Spain has three single species labels, and Germany and The Netherlands have two each.

The coverage of the different animals across the lifecycle is shown in Figure 25.

Figure 25. Stages of production per animal category



The study cannot provide an accurate assessment of the manner different types of production are covered. The evidence included in the mapping of the labels only refers to production systems for some of the animal species (e.g. laying hens). Organic production is clearly signalled. 17 of the labels identified include organic standards. 8 of the laying hens labels are free-range. In addition, in all the multi-tier schemes (13), the higher tiers refer to outdoors production, or, in some cases, organic production. Further, two labels (out of the eight included in the case studies) correspond to specific production systems (Label Rouge for outdoors production system, and ProWeideland for pasture based dairy milk).

Labelling schemes cover the various farming species and types of production in the EU. Out of 48 schemes identified, pigs are the predominant species covered (32 labels). This is followed by beef cattle (27) and broilers (27). 15 schemes cover all of the most commonly covered species which are pigs, dairy cattle, beef cattle, laying hens and broilers. There were 19 animal categories covered by the labels. In terms of production systems, there are 6 organic labels. Within the single species labels, anecdotal evidence shows that some labels cover pasture-based production systems, free range laying hens and outdoors access for poultry and pigs. The state of play indicates that there are precedents to draw from for all the main farmed species in the EU, as well as a wide variety of production systems.

3.4.3 To which extent labelling schemes provide significant improvement in certain aspects of the life of the animals? Which ones?

Data indicating the extent to which existing animal welfare labels in the EU had improved the lives of animals is very limited. A rare example is the decline in the use of battery cages for egg production (66% in 2010, dropping to 48% in 2020), which has been attributed to the introduction of the mandatory method-of-production labelling for table eggs¹⁹¹. Some of the schemes reviewed made claims about their impact on animal welfare. These claims were also limited and difficult to find. For example:

¹⁹¹ Eurogroup for Animals (n.d.) Method-of-production labelling. Available at: <https://www.eurogroupforanimals.org/what-we-do/areas-of-concern/method-production-labelling>

- The label Svenska Ägg Omsorgsprogram claims that following their requirements 'guarantees that the [on-farm] management meets the world's strictest requirements in animal welfare, food safety, infection control and product quality.
- The Animal Welfare Certified (Global Animal Partnership) scheme based in North America reported that the percentage of certified cattle being finished on pasture instead of in feedlots increased from 47% to 78% between 2012 and 2018.
- The UK's Red Tractor label stated that their standards have led to 'improved animal health'.

Such assertions suggest that schemes can offer improvements for animal welfare, but it was generally unclear what data are used by schemes to underpin these claims – for example, there was nothing to suggest that the schemes typically collected baseline data so they could evaluate their impact over time. Additionally, for most schemes, claims about the impact they had on animal welfare were difficult to find. **As such, establishing a clear and direct link between animal welfare improvements and labelling schemes is challenging.**

To address this question, the first element the study has considered is whether the scheme criteria go beyond the legal baseline in the country/ies where the schemes are present. The study takes EU animal welfare legislation as the baseline for the situation of animals in the EU. Labels can be considered to have the potential to benefit animals beyond what the legislation already provides when their standards are higher than the legislation. The second element considered is the quality of the controls used by the scheme. The type of audits, their frequency and the sanctions for addressing non-compliances (as discussed in 3.1.6) provide a level of guarantee that, indirectly, may impact on the life of the animals. Even when standards are similar to the legal requirements, it is reasonable to assume that robust audits provide an additional layer of controls besides official controls, which can ultimately have benefits for animals. For example, in the case of both the Red Tractor label and QS Quality scheme, audits are carried on member farms which presents an increased opportunity for legislative non-compliances to be observed and rectified beyond those carried out by public authorities. It also appears that very few national authorities are carrying any inspections of rabbit farms. Therefore, any label that includes rabbits (e.g. Welfair® and Beter Leven) and have third party certification has an impact on rabbit welfare. This is of particular relevance for EU schemes, given that EU animal welfare legislation is among the most advanced globally. **However, the greatest impact can be assumed to take place when there is a combination of high standards and robust audits.**

Scheme criteria

Nearly all schemes reviewed as part of the present study (51) go beyond EU and national legislation. While some schemes go significantly beyond legislative requirements, others offer only marginal improvements. For example, a review of 12 European assurance schemes covering broilers found that 10 of them had at least some criteria that went beyond the EU legislative requirements, but the remaining two schemes included standards that matched the EU legislation (Level E of Étiquette Bien-Être Animal in France and Lidl British Indoor in the UK)¹⁹².

In terms of the criteria included in the schemes, all of the labels covered on-farm welfare, but just under half also covered transport and slaughter (47%). Some of the common welfare dimensions specified by labelling schemes on the farm related to housing,

¹⁹² Dr Lizzie Rowe (freelance animal welfare consultant) and Professor Siobhan Mullan (University College Dublin) (2021) Broiler MOP Scheme Comparison Table.

enrichment, feed, health, hygiene, outdoor access and handling, but the specific requirements within each of these dimensions varied. For instance, housing requirements for pigs can range from indoor housing only (e.g. under *Haltungsforum* Level 2 for fattening pigs in Germany) to permanent outdoor access (the silver level of *Tierschutz-kontrolliert* for fattening pigs, present in Austria only).¹⁹³ Likewise, the lowest level of *Tierschutz-kontrolliert* exceeds the premium level of the German 'Für mehr Tierschutz' label.¹⁹⁴ Across different schemes, there were also variations in the extent to which specific welfare dimensions exceeded legislative requirements. Of 14 schemes covering dairy cows mapped as part of an ongoing study,¹⁹⁵ 11 included requirements for outdoor access that exceeded the EU's legal standards (which has no obligations on outdoor access). This still varied from a requirement for year-round access to an outdoor yard and grazing for at least six hours a day, 120 days a year (*Haltungsform* Level 3) to the more vague RSPCA Assured requirement for pasture access at least 4 hours a day for 'as long as conditions allow'.

Schemes with a multi-tier approach often set their lowest level only marginally above EU legislation, then increase their requirements for each level. For example, under the five-tier *Etiquette Bien-être Animal* scheme, the lowest level (tier E) has no requirements on travel time. For tier C there is a maximum 8-hour travel limit, however, and for tier A this further decreases to a 4-hour limit.

According to Sørensen and Schrader¹⁹⁶, to achieve more significant improvements in animal welfare, the use of animal-based indicators (e.g. looking at levels of lesions or disease) is preferable to those that are resource-based, as it can be more difficult to link improvements in the life of animals to the measures used. However, most schemes use resource-based measures combined with a small number of animal-based measures (except *Welfare*®, which solely uses animal-based measures). This is because resource-based measures are easier to check and communicate, while animal-based ones can be more complex to audit.

Audit requirements

The effectiveness of audits themselves can be affected by various factors and this too will influence animal welfare. For example, the benefit of using third party auditors is that they are independent. As discussed in section 3.1.12, nearly all schemes for which control procedures could be documented used third-party auditors for some or all of the audits carried out on operators (92%; n=37). However, the literature has also shown that auditors can be more likely to waive non-compliance if their economic incentives to do so increase¹⁹⁷. Typically, farmers must pay for these scheme audits, and this creates a conflict of interest for auditors that may lead them to be more lenient: if a farmer receives a 'bad' audit, they may be inclined to choose a competing auditing firm to carry out future audits¹⁹⁸.

A few studies noted that it is not only economic factors that bias auditors' judgments. Other, social factors, such as auditor-auditee relationships, and professional norms, may further

¹⁹³ Dr Lizzie Rowe (freelance animal welfare consultant) and Professor Siobhan Mullan (University College Dublin) (2021) Pig MOP Scheme Comparison Table.

¹⁹⁴ Pirsich, W. (2017) Tierwohl in der Fleischbranche Label – Verbrauchereinstellungen – Vermarktungswege

¹⁹⁵ Dr Lizzie Rowe (freelance animal welfare consultant) and Professor Siobhan Mullan (University College Dublin) (2021) Dairy Cow MOP Scheme Comparison Table.

¹⁹⁶ Sørensen, T.J., Schrader, L. (2019) Labelling as a Tool for Improving Animal Welfare—The Pig Case. *Agriculture*, 9, 123.

¹⁹⁷ Kwaku Asare, S., van Buuren, J.P. and Majoor, B. (2019) The Joint Role of Auditors' and Auditees' Incentives and Disincentives in the Resolution of Detected Misstatements. *AUDITING: A Journal of Practice & Theory*. 38 (1): 29–50.

¹⁹⁸ Kwaku Asare, S., van Buuren, J.P. and Majoor, B. (2019) The Joint Role of Auditors' and Auditees' Incentives and Disincentives in the Resolution of Detected Misstatements. *AUDITING: A Journal of Practice & Theory*. 38 (1): 29–50.

affect the reliability of auditors' judgments¹⁹⁹. Long-term relationships between auditors and their clients may lead to a reduction in audit quality over time due to auditors being more inclined to 'turn a blind eye'²⁰⁰. As a consequence, audit results may be negotiated between auditor and auditee. That may potentially 'undermine the systems of certification in which [audit] is embedded'²⁰¹. Making this discussion evidence-based is not easy, however. As they review the evidence available in the US, Lytton and McAllister conclude that, when it comes to conflict of interest in food safety audits, 'we do not know how widespread this problem is, nor do we know any way to measure it. Evidence of the problem remains entirely anecdotal.'

These factors have the potential to moderate the improvement in animal welfare offered by labelling schemes, even for those with the most stringent criteria. Of these, five schemes used third party audits in conjunction with their own audits while four used them in conjunction with self-audits carried out by the operators adhering to the scheme themselves. The remaining 25 applied third party auditing exclusively. In the three schemes where third party auditors were not used at all, audits were being carried out by the scheme owners. These different designs speak to different levels of audit independence and rigour, which may be further influenced by the arrangements for paying the auditor. If the latter is paid by the auditee, the level of independence of the auditor is less than if it is paid by another party (for instance, the retailer sourcing the product from the auditee).

Five schemes used third party audits in conjunction with their own audits while four used them in conjunction with self-audits carried out by the operators adhering to the scheme themselves. The remaining 25 applied third party auditing exclusively. In the three schemes where third party auditors were not used at all, audits were being carried out by the scheme or the scheme owners. On the frequency of external audits, 65% (out of 26 schemes) carried these out annually. Some schemes (15%) carried out in-person audits less frequently – ranging from once every 15-18 months to every 2-3 years – though one of these schemes (Pro-Weideland) also carried out audits on farm documentation annually. The remaining four (two NGO, two industry led schemes) carried out audits at least twice a year, or as often as four times a year depending on the certified business and its production model. In the case of the KRAV Certified scheme, audit frequency was reduced to an annual visit after the farmer had been certified for three years. More frequent audits and on-farm visits provide a stronger level of guarantee. Of the 28 schemes where information was obtained on the scheduling of audits, half (50%) used a combination of announced and unannounced visits while a third (36%) generally always announced checks. Only four schemes (14%) operated based on almost exclusively unannounced audits and three of these were based in Germany – Neuland, Association for Controlled Alternative Husbandry (KAT) and Mehr Tierwohl. Unannounced audits are more likely to uncover breaches of standards than announced audits.

Most of the labels mapped have both criteria that go beyond the national and EU legislation, and third party auditors. On that basis, it would be reasonable to assume that they contribute to improvement in certain aspects of the life of the animals.

To conclude, the extent to which animal welfare labelling schemes offer a significant improvement in the lives of animals is difficult to assess precisely, due

¹⁹⁹ Gilboy JA (1998) Compelled Third-Party Participation in the Regulatory Process: Legal Duties, Culture, and Noncompliance. *Law & Policy* 20(2):135-55; Short JL, Toffel MW, Huggill A (2014) Monitoring the Monitors: How Social Factors Influence Supply Chain Auditors. *Harvard Business School Working Paper, No. 14-032*.

²⁰⁰ Fairchild, R. (2008). Auditor tenure, managerial fraud and report qualification: a behavioural game-theoretic approach. *International Journal Behavioural Accounting and Finance*, 1(1), 23-37

²⁰¹ Davey SS, Richards C (2013) Supermarkets and private standards: unintended consequences of the audit ritual. *Agriculture and Human Values* 30:271-281

to the absence of a clear baseline, monitoring tools and evaluations. Instead, general observations can be made based on the characteristics of the labelling scheme: how far beyond existing animal welfare legislation it goes and how it is controlled. In that regard, most of the schemes reviewed include requirements that go beyond existing legislation and use third party auditors. Schemes with a multi-tier approach would set their lowest level only marginally above EU legislation, then increase their requirements for each level. Whether multi-tier schemes may or may not provide major improvements at a large scale would depend on their ability to drive continuous progress along the scale, or else most of the adherents to the scheme would remain on the lowest level, as is observed with several such schemes in the EU. At a minimum, it can be said that labels likely contribute to better compliance with animal welfare legislation, by introducing additional controls to those performed by national competent authorities.

3.4.4 To which extent labelling schemes cover a significant number of the main farmed species (poultry, pigs, cattle, sheep, farmed fish, etc.)?

There is little information available on the number of farmed animals covered by existing labelling schemes. Case study data shows that, for the labels studied, the coverage varies from the entire market (in Sweden) to a very small percentage. Given the small size of the sample and the unavailability of market share data for many of the schemes studied, the below analysis includes anecdotal examples instead.

Some of the multi-tier labels cover significant shares of the national markets. This is the case of Haltungsform in Germany and Etiquette Bien-être Animal in France. In the case of Etiquette Bien-être Animal, seven retailers have signed up to the scheme representing 60% of the French retail sector and selling 30 ranges of chicken that carry the label²⁰². As a result, the scheme covers 12% of France's broiler production and half (50%) of its free-range production (corresponding to 19 million broilers per year as of 2021). However, Etiquette Bien-être Animal has five tiers with its lowest (tier E) being broadly equivalent to EU legislation and not requiring producers to undergo any additional audits. It is therefore unclear to what extent the proliferation of this label in France offers an improvement in animal welfare, or whether it instead simply reflects compliance with legislation.

Coverage is notably extensive in the Dutch Beter Leven scheme, which covers 100% of pigs, 100% broilers and 87% laying hens farmed in the Netherlands. Coverage for dairy producers is lower, however, at less than 20%. Additionally, there are 629 businesses covered by the scheme, including slaughterhouses, dairy or egg packers, processors, chain managers, butchers, retailers, online shops, restaurants and logistics service providers. It is reported that by 2023 all fresh chicken sold in Dutch supermarkets will carry at least one-star under the Better Leven label²⁰³.

The scheme is multi-tiered, however, and the majority of the animals covered are on its lower levels. The label includes 173 1-star and 6 3-star primary businesses producing broilers. In Denmark, Friland has two sub-labels, Frilandsgris (free-range) and Friland Okologi (organic farming), with 100 farmers and 20 farmers respectively. These examples can highlight how farmers may prefer to comply with less strict animal welfare

²⁰² Southey, F. (2021) Animal welfare à la française: What Europe can learn from France's voluntary labelling scheme. [Online] Available at: <https://www.foodnavigator.com/article/2021/10/26/etiquette-bien-etre-animal-what-can-europe-learn-from-france-s-animal-welfare-labelling>

²⁰³ Berkhout, N. (2021) A 'better life' for all Dutch supermarket chickens. [Online] available at: <https://www.poultryworld.net/Meat/Articles/2021/8/A-better-life-for-all-Dutch-supermarket-chickens-784610E/>

regulations. **It is suggested by the EPRS report²⁰⁴ that some multi-tier schemes have no incentive to move from one tier to another.**

The potential impact that animal welfare labels can have on national and EU level market share would depend on external elements beyond the animal welfare schemes. Market dynamics, marketing strategies, national legislation, supply chain dynamics, among other factors, influence the impact. For example, two of the studied labels (Label Rouge and Friland) have a waiting list for farmers to join, as the scheme believes that there is not enough market demand to increase the number of producers under their requirements without saturating the market. Coverage for Label Rouge in France is 15% of the whole French broiler market. It seems that the scheme restricts membership to maintain the exclusivity of the label and its corresponding price premium: if the majority of products hold a label, consumers may be less likely to view them as 'premium' to the others that are available, and therefore will be less willing to pay more for them. Similarly, the Breakfast Directives evaluation²⁰⁵ concluded that the issue of 'standard inflation', whereby barn eggs were becoming the market standard, therefore the premium they could obtain compared to caged eggs was reducing. This meant less incentive for farmers to move from enriched cage to barn production.

Incomplete data suggest that some labels, including relatively recent ones, have begun to occupy significant shares of the market of home-grown animals. This is notably visible for broilers and pigs in France and the Netherlands. The capacity for those labels to expand further can be linked to matters of design, i.e. whether labels include scales and are designed to include the lowest welfare segment of the market, or not. It can also be linked to the question of capacity within the market to absorb higher welfare and therefore more expensive products. Waiting lists for higher welfare pork or broiler production in several EU countries suggests that this is a concern in the eyes of several operators managing schemes.

²⁰⁴ European Parliamentary Research Service (2021) Animal welfare on the farm – ex-post evaluation of the EU legislation: Prospects for animal welfare labelling at EU level

²⁰⁵ European Commission (2020) Evaluation of Marketing Standards contained in the CMO Regulation, the "Breakfast Directives" and CMO secondary legislation. Available at: <https://op.europa.eu/en/publication-detail/-/publication/309c4642-7ec0-11ea-aea8-01aa75ed71a1>

4 Conclusions

This “Study on animal welfare labelling” collected and analysed qualitative and quantitative data on existing labelling schemes with animal welfare claims in EU Member States and how these relate to the main stakeholders. Specifically, this study has:

- implemented a state-of-the-art consumer survey across all EU countries to collect primary data on consumer knowledge, attitudes, willingness to pay and consumption. This survey offered the first comprehensive attempt to capture consumer understanding of farm animal production, their interest in the welfare of farmed animals and the extent to which this influences their purchasing decisions. The consumer survey has also measured the level of demand for an EU-wide animal welfare label across all EU Member States;
- mapped and assessed 51 existing labelling schemes (including, at least, 17 organic labelling schemes focused on animal products) with a tailored framework drawing from regulation studies on certification schemes and from expertise on animal welfare. It assessed their design, operation, coverage and impacts;
- completed 8 in-depth case studies of labelling schemes across 6 Member States; and
- carried out extensive desk research, and an industry-wide survey.

While the evidence collected has been extensive, some gaps remain, that may need to be explored in future research. In particular, the following dimensions remain poorly understood as a result of data limitations:

- the distribution of costs and revenue within supply chains for products bearing animal welfare labels, in particular at manufacturing and retail levels; and
- the impact of animal welfare labels on the welfare of animals themselves.

The study has generated several key findings on which future proposals for an EU framework on animal welfare labelling may be designed.

First, there is a clear demand among consumers for information about animal welfare for all animal products. A label or logo would have the greatest likelihood of providing consumers with the desired information. However, most of the schemes with animal welfare claims found in the EU (42 out of 51) operate at national-level only and none are found in 16 Member States. It is not clear whether and how consumers rely on the EU organic label to choose welfare-friendly products. In that respect, there is unmet consumer demand for animal welfare information on food products in the EU.

Furthermore, considering those Member States where multiple labels with animal welfare claims are found, there is some evidence of consumer confusion and misinterpretation of those labels. There is some evidence suggesting that the multiple labels found in those Member States are contributing to distortions of competition between high welfare producers trading in multiple EU Member States, and sometimes may be negatively affecting producers who provide the highest welfare standards. Labelling schemes found in Member States present certain characteristics (notably the incorporation of origin criteria) that are also contributing to a de facto “renationalisation” of the market for some supply chains. There is therefore a level of complexity in the current landscape of labels with animal welfare schemes that poses challenges to the functioning in the internal market. Such challenges could be addressed by providing greater transparency and comparability between the schemes and the products across the EU.

Any response to consumer demand for more information on food products, while aiming for a better functioning internal market, should not assume too much previous knowledge

from consumers. In fact, EU consumers are not well-informed about the conditions under which farmed animals are kept and treated. Their perceptions are therefore not well aligned with the assessment of the scientific community or specialised NGOs on what the main issues are and where they are observed. The design of a policy response should therefore aim to provide information in a format that is understandable by consumers, while assisting them in making choices across products, and possibly across existing labelling schemes as well.

A framework in the form of a comparative database (a common methodology that assesses and guarantees levels of animal welfare, or a database of schemes) is one of the solutions that have been tested in a couple of Member States to help consumers choose among products on the basis of animal welfare. This may help reduce the risk of labelling schemes portraying themselves as being high welfare when they are only marginally better than the baseline ("welfare washing").

The option of an overarching labelling scheme may use a scale to score products against a set of criteria. Such graded or tiered designs have been better at driving consumers towards choosing the best option.

An intervention at EU level would provide added value, as EU consumers tend to trust a scheme managed by NGOs or EU public authorities more than by national public authorities and other private actors. Either way, the lack of knowledge of consumers in spite of their level of concern and demand suggest that educational campaigns would be needed. Such educational campaigns would also contribute to increasing the impacts of any intervention, by increasing awareness and motivation.

The investigation of the economic dimension of animal welfare labelling schemes points to the complexity of the issues of costs, operator revenues, and consumers' willingness to pay.

The analysis of consumer price differentials between labelled products and conventional products (without animal welfare claims) shows that price is generally, though not always higher for products with animal welfare claims. The difference in price within a sample of products ranges from none at all to 94%. Further, organic products (used as comparison as they also provide higher animal welfare as well) always show a price premium when compared to conventional products. The factors shaping these price differences are multifarious, and while higher production costs are part of the equation, they appear to play a minor role relative to other factors, such as demand, whether products become transformed or not, and retailer pricing strategies. There are large variations across country, industry, and product category.

Supply chain dynamics and pricing strategies mean that gains and losses are not distributed equally between the actors in the supply chain. There is considerable uncertainty about the specifics of value distribution, particularly at the processing and retail steps of the supply chain. This has to do with the manner by-products are generated and then priced by processors, the manner retailers recoup margins lost on some product categories by increasing them on other product categories, and the range of costs these operators are incurring.

Farmers tend to get compensated or rewarded for the higher costs of production, but it is unclear whether that compensation is sufficient to enable them to make a better profit than with non-labelled products. Processors, by contrast, have opportunities to draw margins by adding value to the product, and that notably happens in relation to by-products (for dairy in particular) but also by generating different cuts for meat, which then get sold at a premium to retailers. Retailers seem to benefit more from the higher prices paid by consumers for higher welfare products.

Should an EU level initiative be implemented on this topic, its impact on consumers' price would depend largely on the existing pricing structure in each country, the pricing strategies of the actors in the supply chains, on the baseline of animal welfare practices in those countries, and on the animal welfare standards required by the scheme.

Similarly, the impact of any labelling initiative on value distribution would depend on the manner each supply chain operates. Both vary extensively between sectors, products, and Member States, as a function of the type of supplier-buyer relationships and the extent to which producers are organised or not to achieve bargaining power. It was beyond the scope of the present study to carry out an analysis of these factors across the EU. Yet, they would play an important intervening role in shaping the economic impacts of such an initiative.

How consumers would respond to higher prices is another matter. The evidence suggests that consumers who declare they would consider animal welfare when shopping are not always willing to pay a higher price for higher welfare products. Those who are, would pay a premium that is not higher than for organic products. Furthermore, there are indications that some animal welfare labelling schemes have reached a threshold in terms of scale, declining new entrants into the scheme, which suggests that they are finding it difficult to increase the consumer base for their products. However, willingness to pay increases if consumers are informed about animal farming conditions and if they believe a product is of higher quality. As such, besides solutions tested in some supply chains to keep price increases to a minimum, there are potential marketing solutions to increasing consumers' willingness to pay for higher welfare products.

This study provides limited insights on the extent of the impact that an EU initiative on animal welfare labelling would have on the welfare of farmed animals. This is due to the absence of clear baseline, monitoring tools and evaluations of existing schemes. However, general observations show that a significant proportion of existing labelling schemes found in Europe cover the full duration of life of animals, incorporating standards for welfare on-farm, during transport, and at slaughter. As such, there are precedents for the potential introduction of an EU level scheme covering all stages. Similarly, the state of play indicates that there are precedents to draw from for all the main farmed species in the EU, as well as a wide variety of production systems, since the 51 labelling schemes documented in this study cover the various farming species and types of production in the EU.

Further, most of the schemes reviewed include requirements that go beyond existing legislation and use third party auditors for controls. At a minimum, it can be said that labels likely contribute to better compliance with animal welfare legislation, by introducing additional controls to those performed by national competent authorities. Schemes with a multi-tier approach would set their lowest level only marginally above EU legislation, then increase their requirements for each level. This can imply that those labels using a multi-tier scheme may not provide an improvement at a large scale unless they included incentives for farmers to improve their practices over time.

The study findings show that, in the context of Farm to Fork Strategy, there will be EU value added for the Commission to consider options for animal welfare labelling to better transmit value through the food chain. There is a clear consumer demand that is currently not being met, and a clear need for raising awareness and simplifying the existing state of play of labelling schemes with animal welfare claims in the EU.

Annexes [provided as separate documents]

Annex 1 Study matrix

Annex 2 Consumer survey questionnaires

Annex 3 Targeted survey questionnaires

**Annex 4 Number of respondents to the consumer survey by
Member State**

Annex 5 Results of the choice experiment analysis

Annex 6 Mapping of animal welfare labels

Annex 7 Synopsis report

Annex 8 Case studies

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