



Beef Sector Strategy 2030





Preparing for the future

In February 2022, the world was rocked following the invasion of Ukraine by Russian forces. Whilst the immediate concern is for the ongoing humanitarian crisis within Ukraine, there is a secondary concern for global food security due to Ukraine's role as a major exporter of grains and oilseeds. Much of the work on the coming pages was undertaken before the invasion of Ukraine, and was therefore based on fundamentals of the beef sector in 2020 and 2021. 2022 has seen a seismic shift in beef markets globally, with Agflation now running at approximately 30%.

This steep acceleration in costs contributes to an overall feeling of uncertainty within the supply chain, and with businesses looking at significant cash losses in the coming year, many are apprehensive about what the future holds.

Instilling confidence over the coming months will be paramount to the industry's survival, alongside critical interventions to enable liquidity through the supply chain.

The strategy's steering group discussed delaying the publication of the strategy until greater stability returned. However, upon reflection, the group made the decision that the long-term fundamentals still stood, and that by reviewing the implementation plan in autumn 2022, the strategy could remain relevant and measured - helping steer the sector through the unprecedented challenge as we move forward.

The steering group therefore recommend the following actions that precede the strategy, bridging the period between the immediate challenges and the long-term investment required to meet the future opportunities.

- 1. Stabilise the feed supply chain for primary producers in the medium term**
- 2. Stabilise and prioritise the fuel supply chain for essential industries**
- 3. Protect working capital availability to ensure that the red meat supply chain has enough liquidity to maintain operations through targeted intervention on input costs**
- 4. Develop and highlight knowledge exchange activities that help the supply chain reduce input use without compromising output**

The Scottish beef sector in numbers

➔ Number of holdings with cattle on them in Scotland



10,652

➔ Average size of beef herds
Source: June 2021 Agricultural Census¹



49 cows

➔ Employment on holdings with cattle in 2021
Occupiers & Employees



27,900

Source: Scottish Government

➔ Change in cattle population since 1990



-18.3%

Source: Annual Abstract of Agricultural Statistics and June 2021 Agricultural Census²

➔ Number of cattle on organic holdings in Scotland (2018)



29,200

➔ Share of total cattle population on organic holdings



1.7%

Source: Scottish Government;
QMS calculation using June Agricultural Census data

➔ FARM OUTPUT

£849 million

Farm output as a share of Scottish agricultural output

24.4%

Source: QMS calculations from the
Scottish Government's Total Income From Farming 2018-20³



Number of abattoirs/ processing companies

21 ABATTOIRS, 20 OF WHICH
ARE ALSO CUTTING PLANTS

61 CUTTING PLANTS

Source: FSS Approved Establishments (Scotland), Section
I - Meat from Domestic Ungulates, 28/10/21³



Abattoir output

BEEF & OFFAL
£616 million

HIDES
£17 million

Source: Red Meat Industry Profile, 2021 Edition⁴



Retail sales in Scotland

SUPERMARKET AND CONVENIENCE STORES
£225 million

BUTCHERS
£17 million

Source: Kantar, 52 weeks ending 27/12/20



Value of international beef exports

£36 million

6% SHARE OF TURNOVER
GENERATED FROM
INTERNATIONAL EXPORTS

Source: Red Meat Industry Profile, 2021 Edition⁴

Share of turnover generated from sales to the rest of UK

71%

Source: Red Meat Industry Profile, 2021 Edition

Value of beef exports to the rest of UK

£405
million

Beef sales distribution of primary processors by market outlet

Source: Red Meat Industry Profile, 2021 Edition

61% MULTIPLE RETAILERS

6% INDEPENDENT
RETAILERS

9% WHOLESALE

18% FOOD
MANUFACTURERS

PET FOOD
MANUFACTURERS 1%

FOOD SERVICE AND
CATERING SUPPLIERS 5%

OTHER <1%

1. www.gov.scot/publications/results-scottish-agricultural-census-june-2021
2. www.gov.scot/publications/abstract-of-scottish-agricultural-statistics-1982-2016
3. www.gov.scot/publications/total-income-farming-estimates-2018-2020
4. www.qmscotland.co.uk/sites/default/files/qms_red_meat_industry_profile_2021_use.pdf
5. www.foodstandards.gov.scot/downloads/Section_I_-_Meat_from_Domestic_Ungulates_3.xlsx

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Foreword

Scotland's beef sector is a jewel in the crown of the food and farming industry, with a formidable reputation for delivering a quality product that commands a marketplace premium. Evoking associations with clean, green images and world-famous beef breeds, and steeped in history, heritage and tradition, beef produced in Scotland is high quality, world renowned and with an iconic brand identity.

When Beef 2020, the predecessor to this report, was written, no one could have predicted events such as the UK's exit from the European Union and the Covid-19 pandemic, both of which have shaped the past few years, significantly testing the resilience and strength of the Scottish beef sector.

This is now being tested even more in 2022 with the war in Ukraine, which has led to surging input costs and concerns about food security.

However, despite such adversity, we have shown the very best of the qualities of the industry I am incredibly proud to work in, both as a producer and as the Chair of Quality Meat Scotland.

I do not think there is any doubt that the next eight years, and the route to 2030, will contain adversity and challenges. We have a big job to do, with key challenges around both reaching a target of reducing emissions by 75% and setting the industry up to reach net zero by 2045, plus addressing low profitability across the supply chain and maintaining our productive capacity as a food-producing nation. The latter is even more important following the invasion of Ukraine and the global food security challenge.

Despite these challenges, I am excited about the future for the Scottish beef industry. We have one of the most envied, natural resource bases in the world, ideally suited to the production of beef.

Scotland is home to world-leading research and development institutes and universities which are at the forefront of innovating technical solutions to our industry challenges. We are supported by a wide array of passionate and skilled industry personnel, from our farmers, hauliers, feed merchants and auctioneers to our manufacturing workers, vets and butchers. Every single person working in our Scottish



beef industry is a vital cog in a machine that does not stop, operating seven days a week, 52 weeks a year.

I would like to sincerely thank the members of the Beef 2030 Steering Group for their counsel in developing this report:

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- Yvonne White, Scottish Crofters Federation

Kate Rowell, Chair, Scottish Beef Sector Strategy 2030

Introduction



More than 10,000 farm and croft holdings in Scotland are involved in beef production and it contributes some £850 million to Scotland's annual farm output – around 25% of the total.

These farms and crofts supply approximately 450,000 cattle per year to 20 abattoirs in Scotland, producing more than 165,000 tonnes of beef.

Exports outside of the UK are a small but significant part of trade, taking around 7% of ex-abattoir production each year.

However, the biggest market is trade with the UK, excluding Scotland, and this takes around two-thirds of abattoir output.

While beef cattle farming is at the center of a successful Scottish beef value chain, the wider industry comprises a diverse range of components, ranging from vets, hauliers, auctioneers feed and supply sector companies, to processors, butchers, logistics, and retail outlets.

The future success of the industry

is reliant on each and every element of this supply chain working together for the benefit for the industry as a whole.

Scotland has a resilient beef sector. The global Covid pandemic and the war in Ukraine has highlighted the capacity of the whole supply chain, involving many thousands of businesses, to pull together to keep the nation supplied with high-quality beef and beef products.

However, there are some fundamental weaknesses within the industry which could hinder development and growth.

Unless these issues are addressed, instead of focusing on growth on the global stage, the Scottish beef industry could face real challenges that threaten its survival.

The Scottish Government has been a strong advocate of the Scottish food and drink industry since the early adoption and publication of its National Food and Drink Strategy.

This has been followed up with

investment, most recently in the Scotland Food and Drink Recovery Plan launched in late 2020⁶.

This plan identifies and targets funding at operations to help the Scottish food and drink sector recover from the Covid pandemic and the UK's departure from the EU, and places the 'green build back' at the heart of economic recovery.

As we look ahead to 2030, as well as looking to improve the economic viability of the Scottish beef sector, we must place equal importance on decarbonising our sector and laying strong foundations for meeting the Scottish Government's Net Zero by 2045 legislative commitments, as set out in the 2019 Scottish Climate Change Act⁷.

The Scottish beef industry, with this country's natural advantage of abundant grazing and regular rainfall, has the perfect platform to take advantage of the climate change challenge. We can produce a healthy, nutritious food



“We can produce a healthy, nutritious food product, while minimising emissions and contributing to the management of our land and the multiple habitats and ecosystems that exist there”

product while minimising emissions and contributing to the management of our land and its world renowned habitats and ecosystems.

This can be achieved by managing animals more efficiently, by tackling the productivity challenge, and by focusing again on changing how we make the most of our breeding and nutrition decision-making.

While most of the heavy lifting will be borne by our primary producers, we cannot forget other supply chain partners when it comes to achieving our goals.

The role our auctioneer, processing and retail partners play as enablers, driving viable routes to market and providing the bridge between production and consumers, is invaluable to fulfilling our ambitions.

Scotland’s natural land assets, from rough grazing in the north

and west to more fertile temporary pastures and arable cropping in the south and east, mean we have a diverse range of business types, people, and communities.

There is no right or wrong production system that covers the whole of Scotland – no two farms, crofts or farmers are the same.

Therefore, we will not explore, nor make recommendations on, types of production system but will instead focus on the principle that our farmers and crofters should be enabled to make decisions about the best production system that suits their land and their livestock – the right animal, in the right place, farmed with respect for climate, land, people and animal.

This strategy will also not look at areas that come under the scope of Agricultural Support.

Instead, the steering group would like

to make an overarching endorsement of the principles outlined in the Farmer-led Group reports from Spring 2021⁶, with recommendations within Beef Sector Strategy 2030 designed to align with these principles and identify industry activity that could enhance their outcomes, and accelerate the just transition to a new support system.

Beef 2030 is an overarching, dynamic strategy for the Scottish beef sector for the next decade, developed through industry consultation and collaboration.

It focuses on achieving greater social, economic, and environmental sustainability by seeking to build on current strengths, addressing key weaknesses and threats, and exploring opportunities to attract dynamic new and young people into the industry, while embracing innovative technology and developing new markets.

6 foodanddrink.scot/media/3904/recoveryplan.pdf

7 www.gov.scot/policies/climate-change/reducing-emissions

8 www.gov.scot/policies/agriculture-and-the-environment/farmer-led-climate-change-groups

Our Vision

By 2030 the Scottish beef supply chain will comprise profitable, sustainable and resilient businesses built on a skilled workforce delivering high-value, quality beef and beef products to domestic and international customers, produced to world-leading animal health and welfare standards in a way that has reduced the sector's carbon emissions by 75% from 1990 levels.

Reducing
our carbon emissions by
75%
increasing
the focus to benefit the
natural environment

Developing
and
enabling
our people through:
 **upskilling**
 **training**
 **wellbeing**

Increasing
the economic
value of
beef
supply chains

Ranking
Scotland
as a world
leader
in animal
health & welfare

This strategy review comes at a pivotal moment for the industry following the UK's exit from the EU, the Covid pandemic and the invasion of Ukraine, which have all affected every inch of the supply chain.

However, during the extensive industry engagement around this strategy, there was clear excitement and ambition for the future of our sector, and the possibilities that could be realised by strategic development as we look towards 2030.

Making this vision a reality will require a phased approach over the next eight years, with each step carefully considered, and providing the solid foundations for the next step.

This strategy will be kept alive by a dynamic implementation plan and a Beef Industry Leadership Group who will lead on the implementation of actions.

The phases of our Implementation Plan are outlined on pages 32-38.



Growth Ambitions

As we look forward to 2030, growth of the beef value chain in Scotland has to be our main ambition. However, with the added focus on the climate and nature emergencies that growth has to be responsible growth and must also maintain a downward pressure on emissions throughout the Scottish Beef Supply Chain. What growth looks like in 2030, is growth that spans economic, environmental and social responsibility equally.

Our priorities - Our key growth objectives for 2030

Social

- People value the Scottish red meat industry and want to be engaged as consumers, or as part of the workforce.
- Communities, customers and consumers recognise the value the Scottish red meat industry brings to Scottish communities, landscapes and rural economies.
- We will work to ensure that suckler cow numbers do not decrease below 2021 levels – 413,000 as per the June Agricultural Census.

Economic

- We will increase the value of Scotch Beef PGI by increasing domestic market penetration and develop credentials as the leading sustainable red meat protein brand available in GB.
- We will develop increased economic resilience by growing market share in key export markets and working to increase market access globally.
- We will look for ways to develop additional added-value manufacturing activity in Scotland, exploiting opportunities to derive additional value from the whole carcass.

Environmental

- We will demonstrate global leadership on red meat protein production as part of the Scottish Government's world leading Climate Change Act, reducing emissions by 75% by 2030.
- We represent 'Meat With Integrity', showing that we uphold the highest standards in traceability, assurance and animal welfare, and use that to generate additional value for the Scotch Beef PGI brand.

1. How we will... reduce our carbon emissions by 75% and manage our land to benefit nature

We will achieve this through the following Key Focus Areas:



Scotland is the natural home of beef production. We boast an ideal climate, with native grassland pastures, plus cattle breeds such as the Aberdeen Angus, whose genetics underpin the entire global beef industry.

Progress towards achieving net zero has been stagnant. Emissions levels have not moved much in the past 10 years and although the performance of the leading 10% of producers has continually improved, the gap has widened between them and the bottom 50% of producers. With production cycles of around three years from conception to consumption within the beef industry mean that most farmers will have only eight livestock production cycles between now and the net zero

target in 2045. We must also remember that climate change itself will impact where and how we can produce protein globally. Scotland, with its natural resource base of grasslands, fuelled by a climate that contains a natural abundance of rainfall means that we can be resilient to that changing climate, and that future protein production is ideally suited to the resource base that Scotland has.

Through an industry-wide consultation that ran during the spring of 2021, those in the beef sector voiced their opinions on where they see the strengths, weaknesses, opportunities and threats (SWOT) relating to net zero. These are summarised in the following table:

Strengths	Opportunities
<ul style="list-style-type: none"> • Scotland's primary production base is centred around grassland and forage-based systems that utilise local resources in an effective circular economy. • Scotland is home to world-leading land-based and livestock production research institutes that are working to help practitioners globally better understand how mitigation strategies can be applied to reduce the greenhouse gasses associated with livestock production. • The Scottish Agricultural Industry has united behind the Farmer-led Groups approach to delivering changes that can meet the ambitions set out in the Scottish Government's Climate Change (Scotland) Act 2018. • Scotland has been a world pioneer in whole of supply chain, whole of life Quality Assurance Standards and has a high uptake and coverage within the Scottish industry. 	<ul style="list-style-type: none"> • Through the uptake of proven technologies, there is scope to reduce the carbon footprint of the Scottish beef industry by around 30%. • Increasing the collaboration between different sectors within Scottish agriculture, including arable and dairy, provides an opportunity to increase the amount of beef produced, processed and sold from Scotland. • Through the application of the recommendations in the Suckler Beef Climate Report and the Dairy Sector Climate Group, there is an opportunity to undertake a just transition of the Scottish suckler beef supply chain and the dairy beef supply chain over the next 10 years. • Targeted changes in land use, including increasing uptake of agroforestry and peatland restoration within actively managed agricultural businesses.
Weaknesses	Threats
<ul style="list-style-type: none"> • Low levels of profitability throughout the supply chain leading to a lack of investment and a reduction in the sector's capacity to change. • Fragmented supply chain and range of production systems based on a range of breeds of cattle. • Consolidated processing sector that is mainly aligned to key retailers. • No clear pathway to net zero for the Scottish red meat industry as a singular supply chain. • 'Knowledge Exchange' initiatives have tended to reach a relatively small proportion of people who could benefit and often never reach those who need them most. • The market does not sufficiently reward for increased costs of production associated in some cases with changing production practices. • The Scotch brand does not offer any clear link via the Assurance Standards to carbon neutrality and sustainability. 	<ul style="list-style-type: none"> • Continued low uptake by primary producers of proven technologies to reduce emissions. • Loss of natural resource base from large-scale land use change reducing the capacity of the Scottish livestock sector to provide a critical mass of livestock to maintain the processing infrastructure. • Consumers switching to plant-based alternatives is decreasing the demand for Scottish beef.

The next eight years need to involve transformative change both on the farm and within the wider Scottish beef supply chain if we are to meet both our legislative targets and consumers' expectations about how they want their red meat produced.

The Scottish Government's commitment to net zero by 2045 requires a cut in on-farm greenhouse gas emissions from a baseline of 7MtCO₂e in 2020 to 5.3 MtCO₂e by 2032¹⁰.

We must also prime the research and innovation that needs to take place to make the jump to net zero by 2045.

Additionally, the Scottish Government's Statement of Intent for Biodiversity, published in December 2020, underlines the Government's intention to take action to benefit nature – a separate issue from climate change¹¹.

We know this is a big challenge, but we see this as an opportunity to demonstrate the role that the Scottish cattle sector can play in the climate solution and as an integral

element of the circular economy. By taking a supply chain approach, we can link up the commercial advantage this gives us, using it to ensure greater value is added to the Scottish beef industry.

We need to approach net zero as a united industry and embark on a journey together. To do that, we need to start with credible, available and accepted industry baselines.

Therefore, we are making our **Key Focus Area 1.1** in this area the development of a **Red Meat Industry Net Zero Pathway** by the end of 2023.

In Scotland, we have an extremely proud record of being global pioneers in quality assurance, with the first whole of life, whole of supply chain quality assurance scheme launched in 1990. The current QMS Cattle & Sheep Quality Assurance Scheme covers more than 80% of cattle born in Scotland. Quality assurance is the bridge between consumer

10. www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/pages/17

11. www.gov.scot/publications/scottish-biodiversity-strategy-post-2020-statement-intent



➔ **How we will...** reduce our carbon emissions by 75% and manage our land to benefit nature (cont.)

and producer and gives integrity to the products we sell.

As more and more consumers question the impact their consumption has on the planet's resources, quality assurance will become ever more important as a tool in maintaining and building consumer trust and confidence in our products.

As our producers and supply chain partners adapt their business practices to meet net zero and wider sustainability challenges, our quality assurance schemes must evolve and ensure that the marketplace has a chance to reward action taken at farm level, by quantifying a higher price point and premium product.

Our **Key Focus Area 1.2** is to **further strengthen the Scotch brand to enable the market place to reward actions through the supply chain to reduce emissions.**

Evidence shows us repeatedly that there is a link between higher greenhouse gas emissions and lower profitability at farm level¹².

Despite investment in knowledge transfer and knowledge exchange over the past 10 years, by the Scottish Government and industry bodies such as QMS and AHDB, the adoption of solutions remains slow.

Given the technology available, there is scope to reduce emissions from beef cattle production by 30%, with the only barriers at present being farmers' and crofters' capacity and willingness to seek new solutions.

We must change this and make best practice the norm, following the example set by our early adopters and trailblazers.

Recommendations made in the *Suckler Beef Climate Report* echo this sentiment and articulate clearly why there needs to be a cohesive link between the marketplace and solution adoption¹³.

While more than 70% of emissions from

a beef product are generated before the farm gate, we must not forget the decarbonisation of the wider beef supply chain.

Our processors, auctioneers, butchers and other allied industries are equally as important on our journey to net zero, and we must create capacity for change here and ensure that bespoke solutions are found for rural SMEs on their transition to net zero.

Therefore, our **Key Focus Area 1.3** is to **enable businesses from field to fork throughout the supply chain to access support that increases adoption of solutions**, pulling together the key areas where solution adoption beyond the sphere of farm support can be targeted.

As well as changes on our farms and crofts, and through the wider supply chain, effectively communicating our beef industry's story and sustainability credentials to the public is of paramount importance.

With an ever-widening divide between our urban consumers and rural Scotland, an understanding of production and the benefits of a healthy and balanced diet cannot be understated.

To do this, we must unite both as a supply chain and as a global red meat industry to dispel myths around production and to encourage positive conversations around the production and consumption of red meat, including Scottish beef.

Our **Key Focus Area 1.4**, therefore, looks to achieve exactly that – through **increased communication with consumers and the general public around the benefits and the merits of beef production and consumption in Scotland.**

More information is available in our Implementation Plan on pages 28-38.

12. See, for example, Cattle and Sheep Enterprise Profitability in Scotland, 2020 Edition (www.qmscotland.co.uk/sites/default/files/qms_cattle_and_sheep_enterprise_profitability_2020.pdf)

13. www.gov.scot/binaries/content/documents/govscot/publications/independent-report/2021/01/suckler-beef-climate-scheme-final-report-2/documents/suckler-beef-climate-scheme-final-report/suckler-beef-climate-scheme-final-report/govscot%3Adocument/suckler-beef-climate-scheme-final-report.pdf



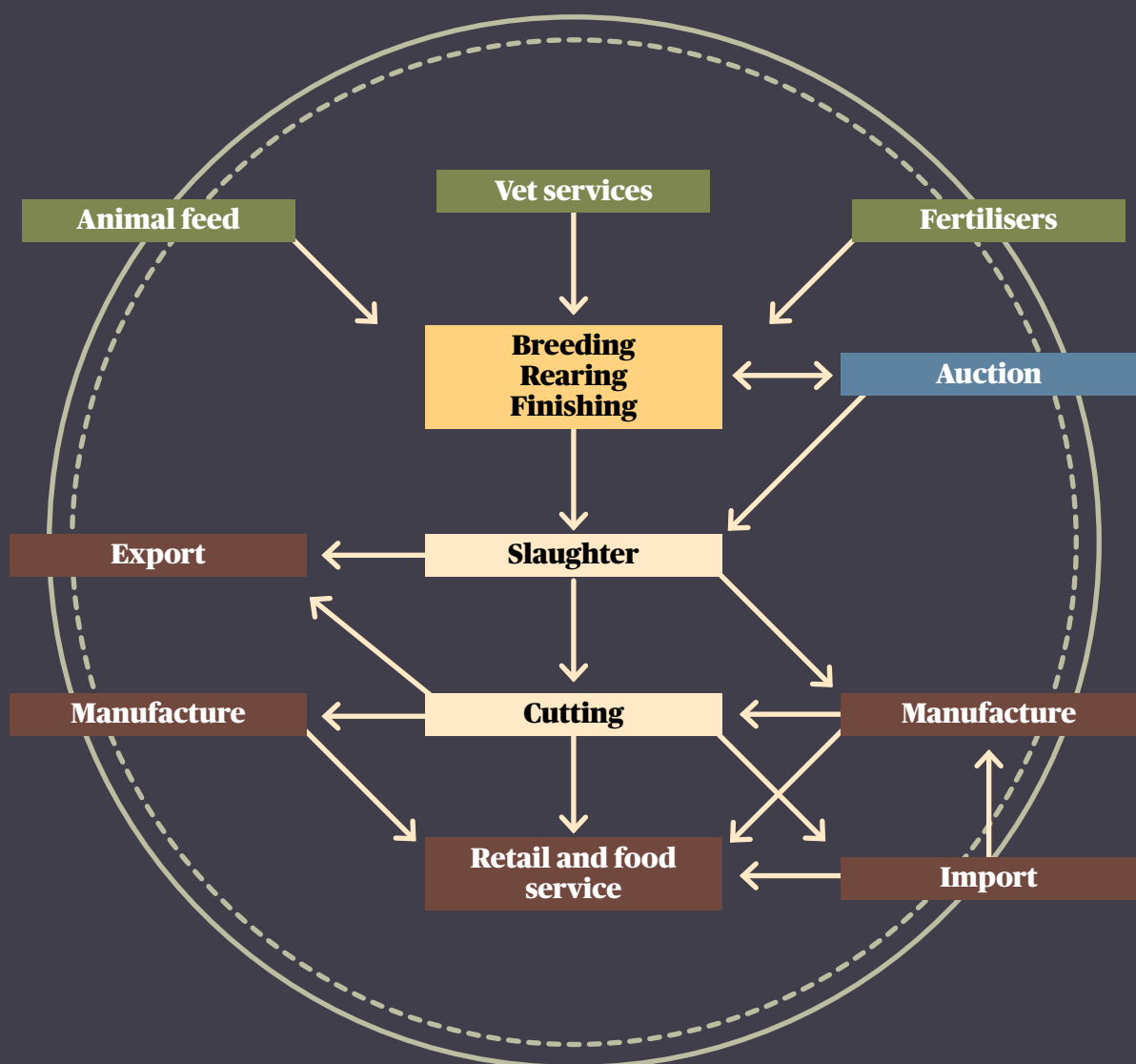
“Quality assurance is the bridge between consumer and producer and gives integrity to the products we sell”

2. How we will... increase the economic value of beef and beef products through the supply chains

We will achieve this through the following Key Focus Areas:



To get Scotch Beef PGI on consumers' plates, or turned into one of the many products made from beef animals, a complex chain that starts in fields and hills all over Scotland must work efficiently:



➔ **How we will...** increase the economic value of beef and beef products through the supply chains (cont.)

Through the industry-wide consultation that ran in the spring of 2021, industry comments around where they see the strengths, weaknesses, opportunities and threats (SWOT) are summarised below:

Strengths	Opportunities
<ul style="list-style-type: none"> • Strong traceability from field to processor through ScotEID, with plans to implement Bovine EID in 2024. • Good network of auction markets throughout Scotland, including on the Islands, providing an effective and transparent place for farmers and crofters to market livestock. • An extremely resilient supply chain that has managed to cope with extreme market changes in 2020/2021 due to the Covid pandemic and the UK's exit from the EU. • A strong processing sector, which adheres to high standards and goes to great lengths to maximise the end product. • A well-developed, well-resourced promotion and marketing programme, that aligns brands back to farm. • A world-leading science and research sector. 	<ul style="list-style-type: none"> • Use of field to fork supply chain data to link communication between supply chain partners and provide a platform for decision-making around production and genetics. • The UK's exit from the EU has provided a renewed focus on international trade and opportunities exist to sell into high-value economies where the middle-class wealth is growing. • Automation of abattoir processes could offer improved efficiencies and long-term cost savings. • The ban on exporting dairy male calves opens new pathways and supply chain opportunities for dairy-bred calves. • The 'fifth quarter' (skins and horns): New funding for research into potential markets and new ways of curing skins, plus new uses for horns. • Increased consumer focus on local foods places high street butchers in an advantageous position. • There is an opportunity to increase the value of carcasses by increasing the amount of product that is eligible to be labelled 'Scotch' being marketed as such.
Weaknesses	Threats
<ul style="list-style-type: none"> • The industry is sometimes bound by tradition, and change has been slow over the past 15 years. • Silo mentality/lack of willingness to collaborate, which is not end-customer focused. • Low use of EID technology at farm level, despite some excellent Scottish examples. • Primary producers feel that the EUROP carcass grading system does not reward them for production that is consumer focused. • Abattoirs will not, or prefer not to, carry out a private kill for small producers and value-adders. • The cost of dealing with skin and horns (the so-called 'fifth quarter'). They have little or no value and the value of hides has decreased significantly. 	<ul style="list-style-type: none"> • Consumers being influenced by perceptions of negative effects on health from eating red meat. • Higher costs of production and lack of profit means unviable businesses, fewer cattle and a shrinking of the industry. • Wage and input costs rising but an inability to get higher prices for products. • Erosion of the Scotch premium from a change in market structure and a more rapid rollout of innovation from rival brands. • Competition from bioenergy for food and drink by-products is driving up costs of production. • Legislative changes, such as that concerning animal transport, is increasing costs, but not in a way seen in other countries.

Scotland's beef supply chain is a complex network reliant on primary producers, auction markets, processors, hauliers and retailers all working together.

A mix of stratified breeders, rearer finishers, dairy producers and specialist finishers work to determine the best type of production system for the land, feeding cattle into one of the 20 abattoirs that handle cattle in Scotland.

While the diverse range of production systems means we can utilise the land in different ways, it also means that beef products in Scotland which come under the Scotch Beef PGI brand can vary in consistency and quality.

At Scottish abattoirs in 2020, 31% of steers were outside the grade range of E, U or R for conformation and 2 or 3L for fat cover.

Meanwhile, 3.5% of steer carcasses were in grades with an average UK specification carcass weight of more than 400kg, with 28% being in grades which averaged over 380kg in 2020.

Therefore, as we look towards 2030, our **Key Focus Area 2.1** when it comes to increasing the economic value of beef and beef products will be to prioritise **improving product quality and consistency**, with recommendations to enhance the consistency and quality of product offered to market.

This will have a dual benefit of boosting returns to the producer and improving the experience of eating Scottish meat.

While most investment at the farm gate is linked to support systems and will be driven in the years to 2030 by the Agricultural Transformation Programme and the ARIOB, it is important to remember that a long-term investment in the post-farm gate supply chain is equally important.

Auction markets, processors, hauliers and retailers all play an important part in the chain taking product to market. Sometimes relatively small or simple strategic investments can improve the efficiency of the supply chain and create areas for added value to be created.

The Covid pandemic and the UK's departure from the EU have exposed some areas of the supply chain that have lacked significant investment in the past decade, and without action now, they will not be able to perform their supply chain functions as we work towards 2030. The war in Ukraine and input cost inflation has added pressure in this area.

Our **Key Focus Area 2.2** is to **identify and accelerate post-farm gate investment**.

The relationship with consumers has always been the most important supply chain link – without consumers, we do not have economic value filtering back down the supply chain, and

without delivering what our consumers ask of us, we fail to have a product that is relevant.

Aligning our consumers' trends and values with our production processes has often been a challenge for the industry, particularly when primary producers are farther down the supply chain from the end consumer.

Scotland is fortunate to have a dedicated levy body that undertakes specific marketing activities on behalf of the beef industry but, in an ever-digitised, consumer-centric era, how do we ensure that our marketing remains relevant?

And how do we ensure that we do enough to future-proof our products and processes, to enable creative and content-based marketing?

This is why our **Key Focus Area 2.3** when it comes to increasing the economic value of beef and beef products is to **develop our global and domestic marketing**.

Alongside focusing on our communications with consumers, the UK's departure from the EU and the renewed focus on export and global markets bring an opportunity to seek out high-value export markets where we can sell Scottish beef.

Beef exports outside the UK accounted for an estimated 6% of abattoir turnover in 2020 – down from 8% in 2019 and 7% in 2018 due to the Covid pandemic. However, a fall to 6% in a highly disruptive year is suggestive of a lower bound, assuming good levels of market access. Following the UK's exit from the EU single market in 2021, exports fell further, although they did rebound strongly in the second half of the year after adjustments were made in routes to market and demand was boosted by a strong EU beef market with surging prices. While trade volumes are expected to have remained below 2019 and 2020 levels in Q1 2022, a further surge in market prices is thought to have pushed up the value of exports beyond previous levels.

With the UK Government looking to strike new trade deals and renegotiate others, a well-structured, opportunity-seeking market access focus could deliver additional value to the Scottish beef sector by 2030. Greater export market access may prove crucial to Scottish processors if increased access to the UK beef market for major agricultural exporting nations was to leave the domestic market over-supplied.

Our **Key Focus Area 2.4** is to **improve market access to a range of high-value export markets**.

The beef supply chain is price-driven and better communication throughout the supply chain will not, in itself, deliver improved margins. We need to stimulate



➔ **How we will...** increase the economic value of beef and beef products through the supply chains (cont.)

competition in the marketplace and address the imbalance of power in the supply chain.

There is a lack of transparency and trust, with livestock producers seen as price-takers rather than price-makers. Ensuring competitive price discovery is a key element of a well-functioning marketplace.

With more than 10,000 primary producers producing cattle for sale either as stores to other farmers or finished stock into the Scottish processing sector, and with farm gate beef prices now largely set by meat processors, most do not have the negotiating strength to ensure best value is achieved through the farm gate.

That will come only through greater co-operation within the supply chain and increased use of existing facilities such as auction markets and co-ops.

Collaboration has been proven to increase competitiveness by creating value chains and networks to share data and market information, and to align production practices to deliver a superior product¹⁴.

Key Focus Area 2.5 is to increase the level

of collaboration both within and outside the Scottish beef supply chain.

In the June Agricultural Census for 2021, 37% of working occupiers and spouses were over the age of 64, with a further 26% between the ages of 55 and 64.

A distinct lack of people joining the sector, both as new entrants and as successors to established businesses, threatens the viability of the family farming structure that defines Scottish agriculture.

This is a particular issue for Scotland's beef industry, with specialist skills in livestock management and husbandry being lost, along with infrastructure.

There is plenty of evidence to show that by creating opportunities for young people to lead businesses, productivity increases – in some cases by up to 30% – making generational change a key focus area in meeting both economic and sustainability ambitions. This is why our **Key Focus Area 2.6** is to **increase the level of planned generational renewal**.

More information is available in our Implementation Plan on pages 28-38.

14. Visit onlinelibrary.wiley.com/doi/full/10.1111/joes.12417 for a discussion and further reading.

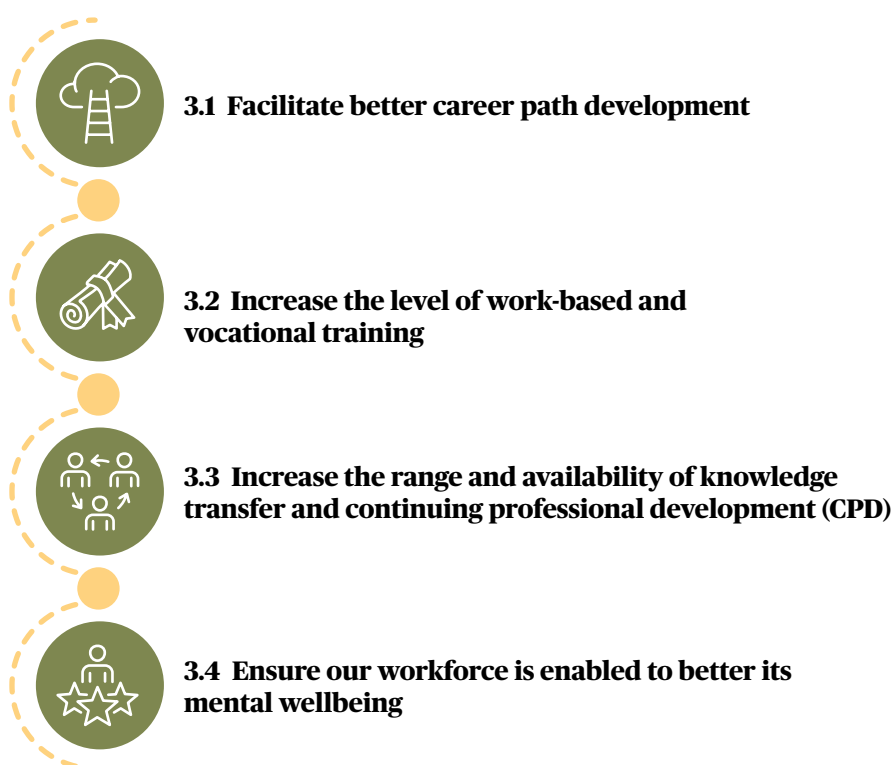




“There is plenty of evidence to show that by creating opportunities for young people to lead businesses, productivity increases - in some cases by up to 30% - making generational change a Key Focus Area in meeting both economic and sustainability ambitions” ➔

3. How we will... develop and enable our people through upskilling, training, and a focus on wellbeing.

We will achieve this through the following Key Focus Areas:



The Scottish beef supply chain is managed by a wide range of people, many in remote rural communities, who are highly skilled and dedicated to maintaining the integrity and quality of our product.

However, the combination of an ageing workforce, the UK's departure from the EU, the Covid pandemic, the war in Ukraine and the misconception that agriculture – in particular, the beef sector – is low tech, low skilled, low paid and slow moving, means the entire supply chain, from farms to the food service sector, is experiencing a critical shortage of skilled labour.

To address these issues, and to prosper through to 2030 and beyond, the sector needs to attract people with

progressive mindsets and ensure that structured skills progression is available throughout the supply chain.

From a farming perspective, it is essential to adopt research, technology and innovation so that beef farmers, crofters and producers have the confidence and skills to maximise the efficiency and productivity of their holdings and to encourage and develop their workforce.

While the challenges faced by the processing and retail sectors when it comes to attracting and retaining staff have been significantly affected by pandemic, the UK leaving the EU and the war in Ukraine, innovation, automation and developing clear career paths will help to create a vibrant and progressive beef sector that new and young people want to join.

Through the industry-wide consultation that ran in the spring of 2021, industry comments around where they see the strengths, weaknesses, opportunities and threats (SWOT) are summarised below:

Strengths	Opportunities
<ul style="list-style-type: none"> • The Scottish beef sector workforce is passionate, resilient and dedicated, with technical skills and a wide knowledge of the industry. • Scotland has several academic institutions and vocational skills providers who offer a wide range of courses related to the beef sector. • Scotland has a wealth of world-leading research institutes and their work can advise on the changes required in the beef sector and how these can be achieved. • Knowledge transfer experts and peer learning groups within the beef sector are successful in delivering improved efficiency and sharing best practice. • IAAS offers professional qualifications in livestock auctioneering, management, welfare and legalities through an accredited course at a major UK rural university. 	<ul style="list-style-type: none"> • Enhance the provision and promote the benefits of work-based learning and vocational training within the beef sector. • Promote the beef sector as a positive career destination to young people, career influencers and career changers. • Promote personal development of the beef sector workforce through knowledge transfer and continued personal development (CPD). • Develop a resilient beef sector workforce which is fit for the future and able to adapt to change. • Highlight the quality, provenance and traceability of beef produced in Scotland to chefs in the hospitality sector. • Deliver educational resources and teacher training opportunities to ensure Scottish beef production is included in cross-curriculum learning. • Create opportunities for new roles in the allied sectors with further investment in technology.
Weaknesses	Threats
<ul style="list-style-type: none"> • Staff shortages, particularly within secondary production and haulage due to the UK's departure from the EU and the reduced number of migrant workers. • Some people within the beef sector are resistant to change. • Low profitability, negative media coverage about meat production, increased anti-meat activism, lone working, staff shortages, increasing pressures and more extreme weather have all had a negative impact on the mental wellbeing of people working within the beef sector. • Barriers such as dyslexia, poor connectivity and technophobia can prevent skills development and can create day-to-day challenges within the Scottish beef sector. • The range of opportunities within the beef sector is poorly promoted at secondary school level and there is a common misconception that it is an inferior career choice. • There continues to be a high number of injuries and fatalities within the agricultural workforce. • Limited cross-curricular coverage of farming and food production within the education system. • Reduction in skilled consultants delivering farm advice. 	<ul style="list-style-type: none"> • Throughout the beef sector, the increasing average age of the workforce highlights uncertainty about future labour levels. • A lack of workers could threaten the flow of goods within the supply chain and could also affect the viability of some businesses. • The lack of new entrants to the industry and workforce movement to other industries risks a skills shortage in the beef sector. • Tertiary education providers do not always provide training that remains relevant to the modern red meat industry. • The lack of financial support to provide the training required results in a skills or labour deficit. • Volatility of the market, changes in policy and financial support and global emergencies may all have a negative impact on the beef sector workforce. • The lack of adaptability to change or to adopt new strategies and technologies may result in businesses becoming unviable. • There is a lack of awareness about the entry and career progression pathway opportunities within the industry. • Continually increasing cost bases and wage inflation compared to relative incomes makes more businesses unviable.

To meet the challenges of the future, we must put our people at the heart of our work and the heart of our strategy, ensuring we have enough of them to carry out critical supply chain functions and that they have the correct training and skills to undertake their work safely and happily.

The events of 2021 have highlighted that, regardless of how good the product is, without people, the supply chain stops.

The UK leaving the EU and the Covid pandemic have placed extreme pressure on businesses, with recruitment from abroad now more difficult.

There has also been a swell in employment opportunities within the Scottish economy, meaning workers are moving

between sectors to seek better pay or working arrangements. No link in the Scottish beef supply chain has been untouched by this skills shortage.

Therefore, our first focus area must be career development and prioritising the development of well communicated pathways into and through the sector, making it as easy as possible for people to choose the red meat sector as their career destination of choice.

Economic multipliers produced by the Scottish Government highlight how valuable meat processing is to the Scottish economy, with Type II multipliers for output, income, employment and gross value added (GVA) all ranked between 3 and 8 out of Scotland's 98 industrial sectors¹⁵.

Our **Key Focus Area 3.1** when it comes to developing and

15. www.gov.scot/publications/input-output-latest



➔ **How we will...** develop and enable our people through upskilling, training, and a focus on wellbeing (cont.)

upskilling is to **facilitate better career path development**.

Attracting new talent to the beef sector is only half the challenge. Across our supply chain, on-the-job upskilling and training has proven to be a huge factor in being able to retain staff, ensuring their skills remain relevant and they are able to progress through the career ladder.

Despite this, vocational and work-based learning is something that, historically, the red meat sector has been very poor at overseeing. Larger businesses have been able to make provision for this, but small and medium-size enterprises, often dependent on a small number of critical workers, cannot always spare the staff or expenditure required. Our **Key Focus Area 3.2** looks at how to **increase the level of work-based and vocational training**.

Alongside formal work-based and vocational training, knowledge transfer and continuous professional development (CPD) that can offer a more informal and continuous form of skills and personal development is invaluable.

This is particularly relevant for primary producers, where knowledge transfer programmes have demonstrated and created support for change on farms and crofts.

Well-established evolution of change models promote the theory that for change to occur, both capacity and capability of the individual

need to align with opportunity. Therefore, to create meaningful change in the beef industry, we need to work on growing that capacity and capability within individuals¹⁶.

Our **Key Focus Area 3.3** looks at how to **increase the range and availability of knowledge transfer and CPD**, so we can support individuals to create the changes our industry needs.

Wellbeing and safety are essential but often overlooked elements of the beef sector. The UK agriculture industry should not be proud of its record when it comes to health and safety, with the Health and Safety Executive ruling it as the most dangerous sector for workers¹⁷.

The sector also has people working on their own for prolonged periods of time, in challenging circumstances, with a poor track record in identifying, treating, and talking about mental health and mental wellbeing.

This affects other areas of this strategy, such as productivity and animal health and welfare.

To improve as an industry and meet the key challenges and changes over the next eight years, our **Key Focus Area 3.4** is to **ensure our workforce is enabled to better its mental wellbeing**.

More information is available in our Implementation Plan, on pages 28-38.

16. See, for example, Burke (2018), *Organization Change: Theory and Practice*, Fifth Edition. Sage.

17. www.hse.gov.uk/agriculture/hsagriculture.htm

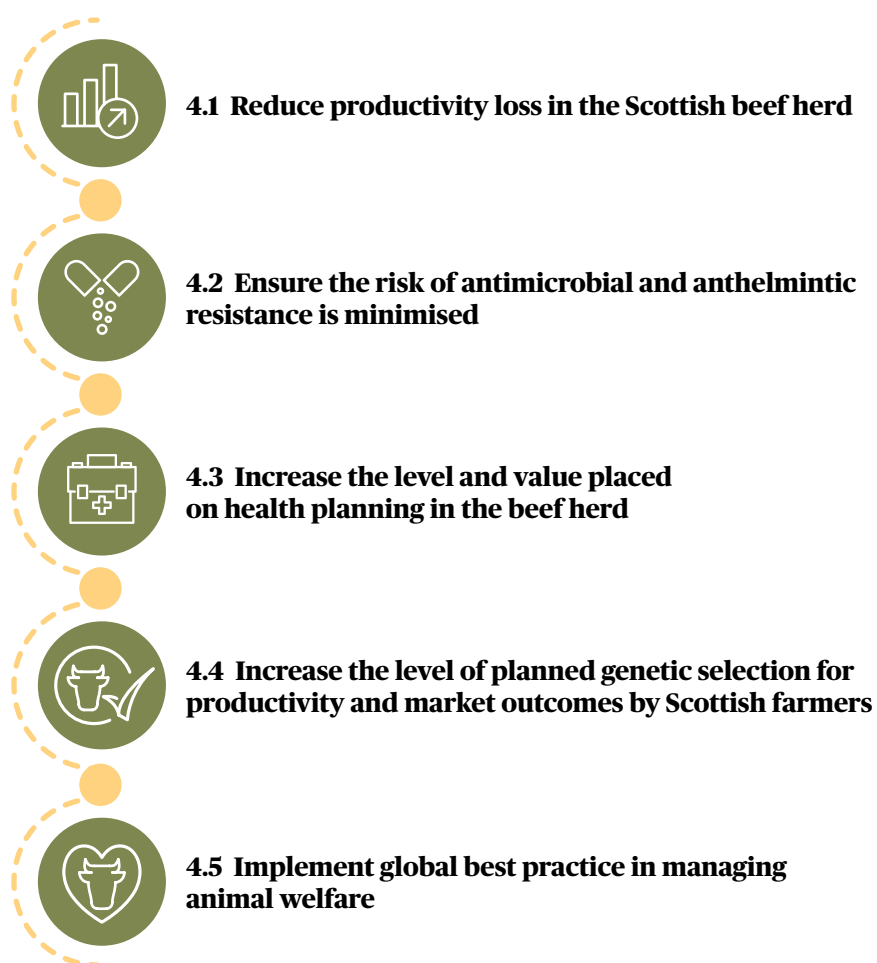




“To meet the challenges of the future, we must put our people at the heart of our work and the heart of our strategy, ensuring we have enough of them to carry out critical supply chain functions and that they have the correct training and skills to undertake their work safely and happily”

4. How we will... enable global leadership in animal health and welfare

We will achieve this through the following Key Focus Areas:



Scotland is renowned for its high standard of animal husbandry. We can be proud of our record on animal health and welfare and our history as world pioneers when it comes to quality assurance.

However, in an increasingly competitive global market, we need to continue leading from the front and take advantage of the world-leading research institutes that are based in Scotland to enhance the national reputation for quality

produce and proficient husbandry. Delivering improvements in animal health and welfare is not a job for one individual agency, and success will be dependent on the cumulative impact of primary producers and wider stakeholders combined.

Governments, producers, enforcement agencies, retailers, auctioneers, vets, and each of us as consumers all have a part to play.

Through the industry-wide consultation that ran in the spring of 2021, industry comments around where they see the strengths, weaknesses, opportunities and threats (SWOT) are summarised below:

Strengths	Opportunities
<ul style="list-style-type: none"> • High level of welfare competency and animal welfare standards, enforced through a mix of legislation and voluntary involvement in Scottish quality assurance schemes. • Leading and robust whole of life, whole of supply chain Assurance Standards that also involve a unique partnership with the Scottish SPCA. • High degree of industry collaboration to control and/or eradicate disease, for example, on BVD. • Scottish-based movement and electronic identification database (ScotEID, with data owned by Scotland's farmers). 	<ul style="list-style-type: none"> • The implementation of bovine EID in 2022 provides the opportunity to develop traceability provision that includes data collection and communication. • With two world-class vet schools in Scotland, and another proposed for Aberdeen, opportunities exist in developing industry support to mentor, support and develop new livestock vets to retain them within Scotland. • The Scottish Government's commitment to the new Scottish Veterinary Service provides a prime opportunity to develop overarching frameworks for provision of key services to the Scottish livestock sector. • There is an opportunity to further integrate research to on-farm, farmer-led trials to give farm-level analysis and results to research projects, and further develop applied research projects in Scotland.
Weaknesses	Threats
<ul style="list-style-type: none"> • Vet provision has become increasingly difficult, with many practices facing recruitment and retention challenges. • Scotland has a lower level of productivity than other competing nations • There is no single, over-arching organisation leading on animal health/animal health leadership. 	<ul style="list-style-type: none"> • Climate change is accelerating new disease and parasite challenges. • Antimicrobial resistance is climbing up the consumer agenda and potentially creating challenges at farm level. • Anthelmintic resistance is leading to a loss of key flukicides and wormers at farm level, and there is an increased risk of uncontrolled parasitic disease, such as sheep scab. • Endemic disease is reducing the productivity of the Scottish cattle herd. • Genetic loss is occurring from unconscious breeding decisions. • Negative public messaging and media coverage has led to consumer concern about areas of production.

One of the keys to tackling climate change, and boosting economic growth, is to improve productivity. There were an average of 82 calves reared per 100 suckler cows in 2019, with those missing 18 calves meaning increased emissions, increased waste, and decreased output from the herd¹⁸.

Targeting improvements in productivity by improving animal health has never been more critical. Extensive research into factors influencing productivity loss consistently points to three key influences – nutrition, neonatal survival and fertility.

Many of the production factors that influence productivity have been encompassed in the principles behind the *Suckler Beef Climate Report*, so our **Key Focus Area 4.1** – which is **to reduce productivity loss in the Scottish beef herd** – builds on what industry can do to prime and accelerate improvements in animal productivity.

While the focus of the industry has been firmly on climate change and biodiversity loss, a third crisis that intersects

human and animal health is on the horizon – antimicrobial and anthelmintic resistance. To maintain high levels of animal health and animal welfare, small amounts of antibiotics are used in the production of Scottish beef.

However, the level of antibiotics used in Scottish beef production compared with other countries and livestock production systems is low, and producers have been early adopters of the principles behind preventative medicine and reducing the need for antibiotics^{19/20}.

Our **Key Focus Area 4.2** is to **ensure the risk of antimicrobial and anthelmintic resistance is minimised**.

One way to align preventative health interventions and productivity planning is to undertake regular health planning.

In 2020, the QMS Cattle and Sheep Quality Assurance Standards introduced a Standard that required health plans to be signed off by a vet. This represented a significant change in focus and importance, and demonstrated the value that health planning can have on consumer assurance areas. However,

18. Source: SRUC (2021) Structure and Efficiency of the Scottish Beef Herd – Cattle Tracing System Insights.

pure.sruc.ac.uk/ws/portalfiles/portal/37019839/SRUC_Report_Structure_and_Efficiency_of_the_Scottish_Beef_Herd_CTS_FINAL.pdf

19. www.gov.uk/government/news/uk-veterinary-antibiotics-sales-more-than-halved-over-the-past-six-years

20. www.gov.uk/government/publications/veterinary-antimicrobial-resistance-and-sales-surveillance-2020



➔ **How we will...** enable global leadership in animal health and welfare (cont.)

barriers remain to allowing effective health planning to take place, including the availability of vets in some parts of the country.

Our **Key Focus Area 4.3** is to **increase the level and value placed on health planning undertaken in the Scottish beef herd.**

The Scottish beef herd is extremely diverse, both in terms of breeds of cattle and the genetic diversity within and between breeds. Some genetic traits are more suited to maternal lines and some to beef yield. Genetics can have significant effect in improving carcase quality, quantity, yield and palatability, fertility and reproductive efficiency, maternal ability, growth rates and birth weights.

However, emerging applied research also shows that genetics will play a vital role in closing the gap to net zero. By improving the quantity and quality of data held, the Scottish beef industry will be well-placed to maximise its potential.

Similarly, we must also look at where our beef comes from. While the suckler herd in Scotland will always be the powerhouse that produces the most beef, opportunities also lie within the dairy beef sector, particularly as changes are applied to the destruction of male calves within milk contracts.

As the UK is a net importer of beef, being only 83% self-sufficient²¹, increasing the amount of beef coming out of the dairy herd could bring

opportunities to the Scottish beef supply chain.

Key Focus Area 4.4 is to **increase the level of planned genetic selection for productivity and market outcomes by Scottish farmers.**

Animal welfare and the respectful rearing of animals is one of the cornerstones of the Scotch brand messaging and is important in defining how we see animals as part of our food production system.

The Scottish livestock industry is proud of its relationship and reputation around animal welfare, particularly our unique partnership with the Scottish SPCA, whereby joint visits are undertaken to farms assured under the QMS Cattle and Sheep Quality Assurance scheme.

We can, however, always do more, and providing routes to continually improve our quality assurance, as well as enabling full and frank independent assessments of animal welfare breaches, will support a culture of open dialogue about what best practice looks like.

This is especially important now that consumers are increasingly questioning what standards are applied and what this means for the food on their plate.

Therefore, our **Key Focus Area 4.5** is to **implement global best practice in managing animal welfare.**

More information is available in our Implementation Plan on pages 28-38.

21. Average for 2016-20 from Defra's meat balance sheets. Data available at assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1025140/slaughter-suppliesdataset-14oct21.ods





“Animal welfare and the respectful rearing of animals is one of the cornerstones of the Scotch brand messaging and is important in defining how we see animals as part of our food production system”

Implementation Plan

Making this vision a reality will require a phased approach, over the next eight years, with each step carefully considered and providing the solid foundations for the next step. The two phases within this vision are broadly summarised below:

2022 - 2025

**Establish
baselines and
generate data**



By 2030

**Accelerate uptake,
innovation and
investment**

Implementation will be overseen by a Beef Industry Leadership Group, with an independent chair appointed to coordinate and provide strategic leadership on the route to 2030.

They will be supported by a QMS staff member, tasked specifically with co-ordinating outputs and activities across the strategy, to ensure that our ambitions turn into action.

Each project relates to the Key Focus Areas outlined in this strategy, within the core visions to reduce carbon emissions, develop people, increase the economic value of beef and enable global leadership animal welfare.

Here are our ambitions and more information on how we plan to achieve them...

	Project	Activities	Timeframe		Lead organisation	Supporting organisation(s)
			2022 - 2025	By 2030		
1	Industry infrastructure – Key Focus Areas 1.1 and 1.2	Work with the wider Scotland Food and Drink partnership board to establish a 'Net Zero Food and Drink Hub' supported by accredited experts who can work with businesses within the post-farm gate supply chain to reduce their scope 1 and 2 emissions.			NFU Scotland	Scotland Food and Drink, Forestry and Land Scotland, NatureScot
		Work with Forestry and Land Scotland to create a network of agroforestry demonstration sites on productive livestock farms and crofts to demonstrate and test barriers to increasing areas of agroforestry in Scotland that also maintain livestock output and productivity.				
		With NatureScot, establish a communication channel between local advisers and farmers to better refine action and priorities through the implementation of Regional Land Use Partnerships, so farmers have a clear route of engagement.				
2	Crofting Support – Key Focus Area 3.3	Review the crofting brand marque and map networks of current crofters who produce food.			Scottish Crofting Federation	Quality Meat Scotland, NFU Scotland, NatureScot
		Establish a full-time crofting environment support worker, who can work with individual and groups of crofters to identify key projects and actions to benefit nature in Scotland's crofting counties.				
3	Develop the Scotch brand to protect Scotch Beef in competitor markets – Key Focus Areas 1.2, 1.4 and 2.3	Working with retailers, consumers and the beef and lamb supply chain, undertake a cost-benefit analysis on introducing sustainability standards to the QMS Beef Quality Assurance scheme			Quality Meat Scotland	SAMW, IAAS, SCF, SBA, SCB
		Conduct research in consumer motivation behind buying/not buying beef to ensure that Quality Assurance standards remain proportionate and market driven.				



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	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
4	Marcomms collaboration and training – Key Focus Areas 2.5 and 1.4	Work collaboratively with AHDB and HCC and identify collaborative marketing and communication projects that strengthen the reputation of the UK red meat industry both domestically and abroad.			Quality Meat Scotland	SAMW, IAAS, NFU Scotland, SCF, SBA, GMA, HCC, AHDB
		Develop a training programme that will provide members of the supply chain with the skills (including social media, photography and videography) to communicate effectively with the public.				
		Establish a cross-UK panel of red meat nutritionists and scientists who can provide independent comment on information and media reports that are critical of red meat consumption and production, to ensure that balanced coverage is easily accessible and available.				
		Work with other red meat-producing nations globally, and the Global Meat Alliance, to develop a global research bank that will audit what research is under way in key areas of consumer concern, such as health, nutrition and climate change.				
5	Develop Net Zero and Nature Restoration Route Map – Key Focus Areas 1.1 and 1.3	Develop baseline carbon emissions through a series of industry life cycle analyses from field to fork across the Scottish beef supply chain.			Quality Meat Scotland	SAMW, IAAS, NFU Scotland, SBA, SRUC
		Work with the global beef industry to benchmark both carbon emissions and biodiversity indicators using an agreed common metric.				
		Quantify sequestration assets (woodlands, peatlands, etc) that exist on Scotland’s farm base, producing a figure attributable for land that is actively managed for food production.				
6a	Field to fork: Areas for Optimisation – Key Focus Area 1.1	Work with organic certification bodies to examine barriers to increasing the number of cattle finished organically in Scotland.			SAMW	SOPA, Soil Association, Scotland Food and Drink, QMS, AIC, IAAS, SBA, SCB

	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
6b	Field to fork: Areas for Optimisation (cont.) – Key Focus Area 1.1	Work with the National Manufacturing Institute of Scotland to develop applied research projects with Scottish processors to identify and test technology that automates processes and reduces carbon emissions from the manufacturing process within abattoirs and packhouses in the Scottish red meat supply chain.			SRUC	
		Work with Scottish universities and innovation calls from Innovate UK to establish a remote, satellite-based system to monitor and measure grass growth in Scotland to encourage widespread adoption of grassland measurement and management.				
6c	Key Focus Area 1.1	Work with AIC Scotland and Scottish feed companies and suppliers to map out the barriers and opportunities to phase out soya, palm oil and other soya and palm oil derived products from beef cattle diets, whilst recognising the importance of maintaining flexibility within feed supply chain..			QMS	
7	Meat Quality – Key Focus Areas 1.4, 2.1 and 2.2	Undertake a review of the meat-eating quality work that has been undertaken in the UK over the past 10 years, benchmarking Scottish performance against this. Produce an action plan to accelerate work into improving meat-eating quality and consistency within the Scottish supply chain.			QMS	SAMW, IAAS, NFU Scotland, SCB, SBA
		Given changing production processes due to climate change, work with the UK nations to evaluate the EUROP grid on whether it delivers value to farmers.				
		Expand provision of 'Meat The Grade' workshops to every processor in Scotland, providing 250 places per year for producers to receive specialist training on improving specification of livestock.				
		In collaboration with research institutes via SEFARI, develop targeted research and development into the 'Scotch Difference', looking at nutritional studies to deliver face-based evidence on the quality and benefits of Scottish beef.				
		Work with processors, the UK and Scottish Government and Innovate UK to look at models to scale up the on-farm work that measures animal performance and confirmation, as a way of providing data to semi-automate the selection process for picking finished stock.				



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	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
8	Support the Haulage Sector – Key Focus Area 2.2	Recruit a full-time livestock haulage trainer, based in Scotland, to work with the Scottish livestock haulage industry. The post will involve training new entrants to the sector and providing training to established drivers in order to update certificates of competence, improving the retention and increasing access to training for new drivers.			Road Haulage Association	SAMW, IAAS, NFUS, SCB, SBA, QMS, Lantra
		Work alongside the Road Haulage Association to identify strategic locations for new lorry wash facilities and driver welfare facilities, to improve operating conditions for Scottish hauliers to help increase driver retention and encourage new entrants into the livestock haulage industry.				
9	Support the Post-Farm Gate Supply Chain – Key Focus Area 2.2, 2.5 and 2.6	Encourage and support the existing auction marts and co-operative(s) to give producers a collective voice; to operate as an intermediary between producers, the markets and the processing sector, etc; and to facilitate a greater ability to respond to market signals.			SAMW and IAAS	QMS, NFU Scotland, SBA, SCB
		Fund a contract and private kill co-ordinator to work with Scottish processors and producers. The aim is to co-ordinate private and contract kill for individual producers supplying their own box schemes or farm shops, streamlining the process, and creating capacity within the existing processing network to better develop opportunities for producers to have their own livestock killed, to create their own routes to market.				
		Review each of the city and regional deals in place across Scotland, identifying regions and areas that have been missed. Work with the Scottish and UK Governments to scope a 'rural deal' for Scotland to align investment in these areas that includes strategic investment in the Scottish beef supply chain.				
10	Legislation and legal planning/ support – Key Focus Area 2.6	Work with the UK and Scottish Governments to understand the fiscal impact and levers that could be used to create a taxation incentive to let tenanted farms for a minimum five-year period, based on the system in the Republic of Ireland.			NFU Scotland	QMS, SBA, SCB, Scotland Food and Drink, Scottish Leather, SAC Consulting
		Work with the Scottish Land Commission to establish a Scottish Succession Mentoring Service, which can offer independent advice, support and mediation during farm business succession.				
		Expand provision in the permitted development rights within Scottish planning legislation to allow additional modern housing for members of the farming business to be built on Scottish farmland, reducing the loss of rural youth from the farming community due to a lack of available housing.				

	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
11	Research, Promotion and Product Development – Key Focus Areas 1.3, 1.4 and 2.2	Work with Scotland Food and Drink and other partners to invest in additional insight development and research that is then used to underpin marketing and communications activity by QMS.			QMS	NFU Scotland, SBA, SCB, Scotland Food and Drink, Scottish Leather, SAC Consulting
		Undertake a research and insight review of what other food and drink products are being purchased by the demographic the 'Scotch' brand is targeting and look to adopt joint marketing initiatives.				
		Work with retailers, processors and farmers to look into the development of a top-tier brand that, through additional optional Quality Assurance Standards, will encourage primary producers to implement change that is rewarded by the market, aligning this with the Sustainably Scottish work proposed by the Scottish Government.				
		Further develop the established 'Meat With Integrity' and 'Make It' Campaigns to focus on the role of vitamin B12 and key sustainability messaging, aligning this with retailers, butchers and purchase pathways.				
		Study the viability of developing a Scotch brand for 'fifth quarter skins and hides, underpinned by quality assurance.				
		Use the Food Innovation hubs throughout Scotland to develop a pipeline of food product research and development to invest in a new generation of beef and beef co-products.				
12	International Promotion – Key Focus Areas 2.3 and 2.4	Develop a bespoke training programme for SDI to increase the team's knowledge of red meat production and producers in Scotland.			QMS	NFU Scotland, SBA, SCB, Scotland Food and Drink, SAC Consulting
		Develop the Scotch Chefs Club and Scotch Butchers Club to identify and promote hospitality and butchers internationally who are using Scotch Beef PGI.				
		Establish a regular insight mapping programme of key and emerging export markets, showing consumer demand, potential market penetration, and barriers for Scottish red meat exporters.				
		Form a Scottish Red Meat Export Development Working Group, comprising UKCEP, DEFRA, DIT, the Scottish Government, SDI, SAMW, Scottish processors and FSS to meet quarterly, enabling the appraisal and issue escalation of longterm export opportunities in the red meat sector.				



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	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
13	Investment in auction markets – Key Focus Area 2.2	Work with the IAAS and local authorities to examine the viability of bringing increased investment to auction market sites across Scotland, developing them as strategic rural hubs that offer a place for training, connecting, working and undertaking business in rural Scotland.			IAAS	NFU Scotland, QMS, SBA
		Fund an electronic auction system, working with the established Scottish auction markets, to stimulate competition in the prime stock, cull cow and bull sector to address the imbalance of power in the supply chain.				
14	Assessment of currently available initiatives for training and work-based learning in beef sector and supply chain – Key Focus Areas 3.1, 3.2 and 3.3	Undertake a mapping exercise to establish the current skills and training provisions within the beef sector and numbers participating.			NFU Scotland	SDS, QMS, SBA, LANTRA, SFD, SFDF
		Work with the wider industry and skills groups to develop and better communicate and understand the value, availability, and funding routes for work based learning across the supply chain within the beef sector.				
		Based on need, develop collaborative opportunities for businesses and employees to participate in work-based and vocational learning, with activities being centrally co-ordinated for maximum uptake.				
		As part of a cross-sectoral approach, develop a new Monitor Farm Scotland programme that offers a place-based knowledge transfer mechanism and blended learning opportunities, to identify local solutions and create local networks to increase update of change at primary production level.				
		Alongside the Red Meat Net Zero Route Map, create a plan to support reskilling, upskilling, and training across the supply chain for the transition to net zero.				
15	Mental health and wellbeing support – Key Focus Area 3.4	Develop a Red Meat Mentoring Programme to develop meaningful relationships to further business success and mental wellbeing between constituent parts of the red meat supply chain.			RSABI	5 Agri, QMS, NFU Scotland, SCB, SBA, SAMW, Yellow Wellies
		Work with the Health and Safety Executive to develop online modules to train the beef sector workforce, to improve their health and safety and reduce the number of accidents and fatalities within agriculture.				
		Create a red meat industry online mental wellbeing assessment tool to help identify poor mental health and wellbeing, and provide necessary signposts to support agencies.				
		Work with mental wellbeing organisations to develop an online course to train those within industry (feed representatives, vets, auctioneers, mentors etc) to identify poor mental wellbeing and signpost to advice.				

	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
16	Continuing Professional Development (CPD) – Key Focus Areas 3.1 and 3.3	Develop a suite of Red Meat Sector CPD courses aimed at farmers, auction staff, hauliers, butchers, processors and chefs.			Lantra	RMRG, Skills for Farming
		Identify access barriers to CPD, such as technophobia, dyslexia and connectivity, and ensure accessibility is built into existing and new knowledge transfer and CPD provision.				
17	Outline career paths and opportunities and work with education providers – Key Focus Area 3.1	Establish clear blueprints of the various career pathways for entry level and career progression within the supply chain and develop these into easy-to understand assets that can be used by careers advisers, teachers, lecturers and others.			QMS	SAMW, SBA, IAAS, SCB, RHET, Skills for Farming, NFU Scotland
		Appoint a dedicated cross-supply chain task force to seek out opportunities to work with pupils, career influencers and the ‘Developing the Young Workforce’ (DYW) initiative to highlight opportunities within the beef industry, including work experience, placements and apprenticeship opportunities.				
		Develop a bank of assets and resources that highlights the opportunities, range of careers and skills developed within the beef industry.				
		Support educators to teach pupils about red meat production by providing relevant resources and teacher training.				
18	Connect industry with potential workforce – Key Focus Area 3.1	Seek opportunities to attract new groups of people into the industry, such as asylum seekers, ex-offenders, ex-Services, and groups of recently unemployed workers, ensuring that the industry has an easy to access point of information to encourage joining.			Scotland Food and Drink	RHET, SBA, SCB, NFUS, SAMW, IAAS
		Work with the Scottish Red Meat Resilience Group partners to develop an open list of individuals and businesses within the beef sector who are willing to engage with education to schools and consumer groups, developing effective resources and training to enable them to undertake this.				



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	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
19	Tertiary education – Key Focus Area 3.1	Working with colleges and universities, create an advanced apprenticeship in the red meat industry suitable for qualified career changers and graduates, providing them with a supported route into the red meat industry.			QMS	FU Scotland, IAAS, SAMW, SBA, Scotland Food and Drink, FDF Scotland, RHET, SCB
		Work with the Scottish Red Meat Resilience Group partners to build the case for every undergraduate degree at Scottish Agricultural Colleges to include a mandatory industry placement year, and work with members of the red meat industry to develop appropriate industry placements that can be offered to students.				
		Develop a Scottish Red Meat Industry Graduate Training Programme that works across the supply chain, to identify opportunities for graduates to move into industry, with a designed programme of industry support to encourage completion.				
		Develop a bolt-on beef sector-specific module to be offered to those from the Scottish beef sector participating in the Scottish Enterprise Rural Leadership Programme.				
20	Red meat industry careers – Key Focus Area 3.1	Expand the ‘Butchery Careers Project’ into a wider ‘Red Meat Industry Careers’ project, comprising a fully resourced website, promotional material, interactive jobs matcher and work experience advertising portal.			QMS	SBA, Scotland Food and Drink, FDF Scotland, RHET, SCB
21	Register of advisers and change management programme – Key Focus Area 3.3	Following the model for agronomists in the UK, create a ‘Register of Beef Advisers’ to formalise and drive up the standard of advisory provision in the beef sector.			SAOS and Scottish Beef Association (NBA to support)	QMS, SBA, NFUS, IAAS, SAMW, SAC Consulting, 5 Agri
		Work with the Scottish Red Meat Resilience Group, researchers and behavioural psychologists to develop a beef sector change management programme that pulls together the changes to agricultural support policy, changing financial and legislative landscape, and identifies key behavioural changes and mechanisms to aid a smooth transition.				
22	Establish network for communication and knowledge exchange around animal health – Key Focus Area 4.1	Create a nationally funded communications programme, based on the findings from the North East Neonatal Calf Loss Programme and other projects, to give producers Scotland specific insight into factors influencing calf loss.			Livestock Health Scotland	Mordun, SEFARI, SRMRG, ScotEID, SAOS.
		Develop a national programme to control Johne’s disease and Infectious Bovine Rhinotracheitis (IBR) within the Scottish herd.				
		Through industry knowledge exchange programmes, develop messaging encouraging the culling of unproductive animals.				

	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
23	Support the veterinary profession – Key Focus Areas 4.1, 4.2 and 4.3	Work with the Scottish Veterinary Service to examine how integrated support between public and private veterinary delivery could deliver a One Health approach to antibiotic reduction across the Scottish beef herd.			BVA Scotland	QMS, NFU Scotland, SBA, IAAS, SAMW, SRUC
		Work with the new Scottish Veterinary Service steering group to develop public private partnerships to assist in the development of annual herd health plans in remote rural areas of Scotland, underpinning livestock production in fragile rural areas.				
		Use of EPIC's disease models with the parameters of a changing beef industry to understand how disease might be best controlled under modelled industry change scenarios.				
		Communicate positive messages around the value and benefits of vaccination in improving health and productivity (as per the new NOAH livestock vaccination guidelines), and reducing avoidable antimicrobial use.				
		Support the development of large animal livestock vets, working with veterinary colleges across Scotland to provide appropriate work experience and on-the-job training opportunities at a range of beef enterprises, and support and mentorship from key industry bodies. In addition, develop a cross-sector communications campaign to 'sell' the role of mixed practice/large animal vets, and veterinarians within the food production sector to graduates and qualified vets				
24	Collaboration with dairy industry – Key Focus Area 2.5	Work alongside the Scottish dairy industry to identify a network of businesses to rear calves coming out of the dairy industry, utilising existing infrastructure and assets to maximise output.			IAAS	NFU Scotland, SAMW, AHDB, QMS
25	Traceability, data capture and transfer of information – Key Focus Areas 2.5 and 4.4	Expedite the introduction of EID for cattle, creating efficiencies in data capture and flow, and providing greater ability to monitor stock performance.			SAOS	NFU Scotland, QMS, SBA, IAAS, SAMW, SCB
		Augment existing farm livestock traceability with abattoir feedback in terms of killing weights and grades in a dashboard format to breeders and finishers, to give valuable feedback to aid efficiency of production and help them meet market requirements.				
		Work with the Moredun Research Institute to accelerate the commercial development of Targeted Selective Treatment (TST) technology in cattle as part of the evolution of EID.				



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	Project	Activities	Timeframe		Lead organisation	Supporting organisation (s)
			2022 - 2025	By 2030		
25	Traceability, data capture and transfer of information (cont.)	Work with partners in Scot EID, the Scottish Government, DEFRA and others to develop a Scottish interface to the ruminant E-medicine book compatible with each of the domestic movement services and farm software packages, to ensure a smooth transfer of information with animals.			SAOS	
		Set up an agricultural digitisation steering group, comprising national organisations such as the Digital Transformation Service, Data Lab, Smart Rural and ScotEID, alongside relevant Agri-Tech Centres of Innovation and key supply chain groups, to develop a pathway to digitise and automate data collection and sharing from field to fork across all Scottish agricultural products.				
		Design and implement a national Scottish Genetic Management database as scoped in the QMS Scotch Beef PGI Traceability and Performance project.				
26	Good practice in animal welfare and reporting system – Key Focus Area 4.5	Establish a secure and independent notification service to report concerns around animal welfare from any point in the supply chain. This service should act as an independent adjudicator and should be able to access support, advice and training services if needed.			RSABI	IAAS, SAMW, SBA,SAMW, FSS, Scottish SPCA



Acknowledgements

From the outset, the intention has been not to publish a strategy for the Scottish beef sector but to publish a strategy developed in consultation with the Scottish beef sector. To this end, a steering group was appointed, chaired by QMS chair Kate Rowell and comprising:

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|--|--|
| ● Stuart Ashworth
Quality Meat Scotland | ● Martin Morgan
Scottish Association of Meat Wholesalers |
| ● Alistair Brunton
Scottish Association of Young Farmers Clubs | ● Andy Nye
Scottish Association of Meat Wholesalers |
| ● John Davidson
Scotland Food and Drink | ● Paul Ross
Scottish Beef Association |
| ● Gavin Hill
SAC Consulting | ● Duncan Sinclair
MSD Animal Health |
| ● Scott Jarron
Scottish Craft Butchers | ● Yvonne White
Scottish Crofting Federation |
| ● Martin Kennedy
National Farmers Union Scotland | ● Neil Wilson
Institute of Appraisers and Auctioneers Scotland |
| ● Sarah Millar
Quality Meat Scotland | |

While a steering group was appointed to lead the project, a wide range of views, expertise, knowledge and experience was also sought from throughout the supply chain.

An initial round of stakeholder engagement took place in the spring of 2021, seeking views from across the industry on perceived strengths, weaknesses, opportunities and threats to different areas of the supply chain. From this, more than 1,300 comments, submissions and elements of feedback was received, covering every element of the Scottish beef supply chain.

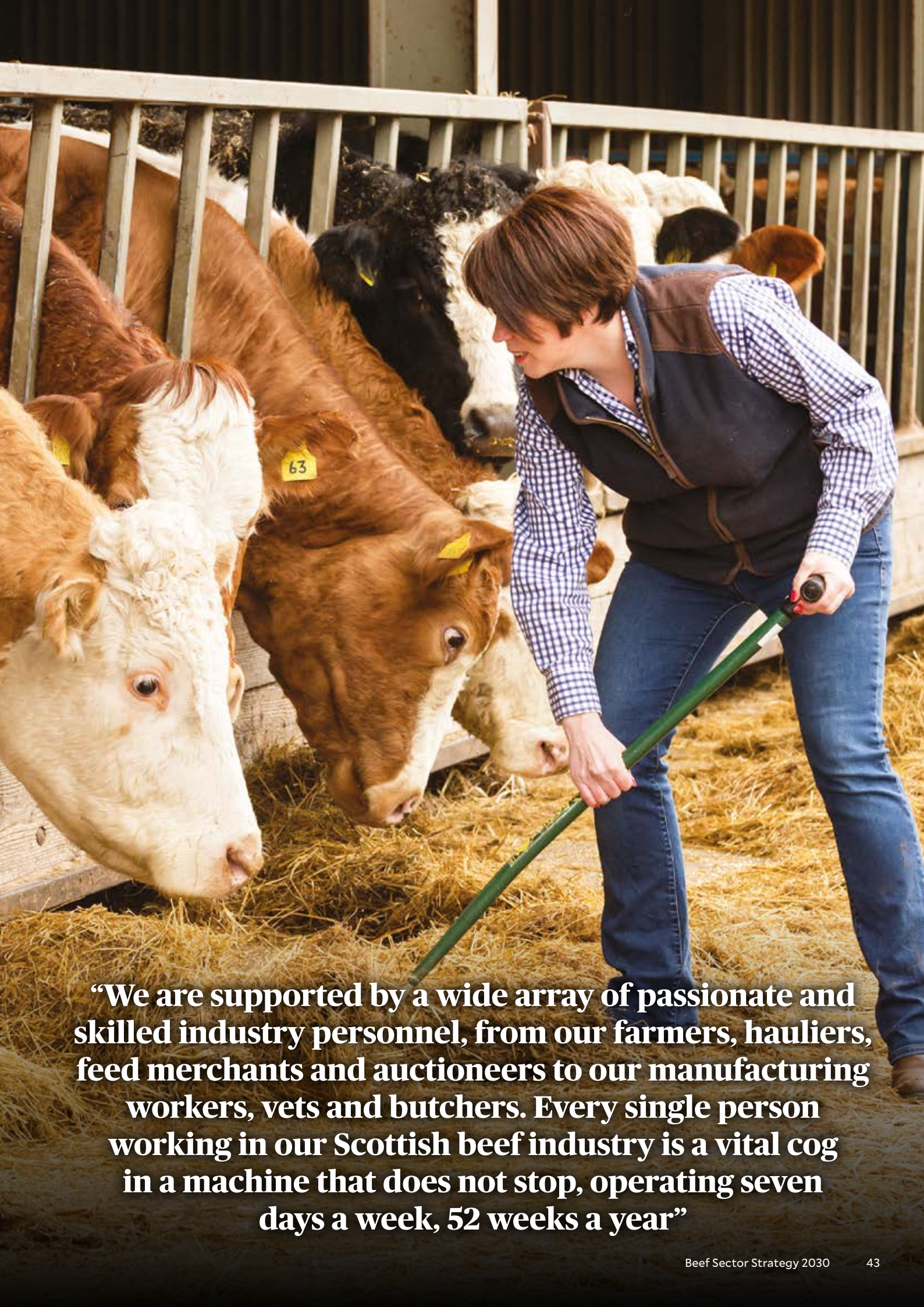
Following this initial feedback, four key pillars were formed and these are the basis for the key pillars of this strategy – Environmental Sustainability, Profitability Within the Supply Chain, People and Skills, and Animal Health and Welfare. Within each strategic

pillar, focus areas were then identified, and recommendations then evolved to tackle the issues within the focus areas.

In the autumn of 2021, a second round of targeted stakeholder engagement took place, focusing on stress-testing each of the focus areas and recommendations, with key organisations and individuals within the Scottish beef supply chain. Feedback was collated, and the steering group used this to sign off the final recommendations within this report.

The steering group would like to extend its sincere thanks to all of those who shared their thoughts regarding the challenges facing the industry. In providing their unique insights into overcoming these challenges, we hope to build a stronger, progressive and more viable Scottish beef sector through to 2030.





“We are supported by a wide array of passionate and skilled industry personnel, from our farmers, hauliers, feed merchants and auctioneers to our manufacturing workers, vets and butchers. Every single person working in our Scottish beef industry is a vital cog in a machine that does not stop, operating seven days a week, 52 weeks a year”

Glossary

ADHB:

Agriculture & Horticulture Development Board. This statutory levy board is funded by farmers, growers and others in the supply chain.

AIC:

Agricultural Industries Confederation

BCMS:

British Cattle Movement Service

BVA Scotland:

British Veterinary Association Scotland

BVD:

Bovine Viral Diarrhoea. Infectious disease of cattle which is subject to a mandatory eradication scheme via the Scottish Government

DEFRA:

Department for Environment, Food & Rural Affairs

DIT:

Department for International Trade

DYW:

Developing the Youth Workforce, the Scottish Government's Youth Employment strategy to better prepare young people for the world of work

EPIC:

The Scottish Government's Centre of Expertise on Animal Disease Outbreaks

EU:

European Union

EUROP:

European carcass classification system, where carcasses are

graded on a scale based on muscle E to P (excellent to poor) and fat 1-5 (extra lean to extra fat)

Farm gate:

The price for the sale of farm produce direct from the producer

Finishing:

The process of feeding an animal until it is ready for slaughter

FLS:

Forestry and Land Scotland

FSS:

Food Standards Scotland.

HCC:

Hybu Cig Cymru – Meat Promotion Wales, the levy body responsible for the promotion and development of Welsh red meat

IAAS:

Institute of Auctioneers and Appraisers Scotland. Representative body for the Scottish auction marts.

Innovate UK:

The UK's innovation agency, part of UK Research and Innovation (UKRI), which is the national funding agency investing in science and research in the UK

Knowledge Exchange:

The exchange of information between academic staff, users of research and communities to exchange ideas, evidence and expertise

KPIs:

Key performance indicators

Land-based resource:

Relates to land, climate, water, soil, trees – essentially, our

entire land resource that all contribute to beef production

Net zero:

Not adding to the amount of greenhouse gases in the atmosphere. Achieving this means reducing emissions as much as possible, and balancing out any that remain by removing an equivalent amount

NFU Scotland:

National Farmers Union Scotland

PGI:

Protected Geographical Indication. PGI emphasises the relationship between the specific geographic region and the name of the product, where a particular quality, reputation or other characteristic is essentially attributable to its geographical origin

Prime animals:

Sale of animals that are close to slaughtering

Quality Assurance Standards:

Whole chain assurance underpins the integrity of our premium brands and provides reassurance to consumers of provenance, highest standards of production, animal welfare and wellbeing, to deliver a quality eating experience

QMS:

Quality Meat Scotland

SAMW:

Scottish Association of Meat Wholesalers

SAOS

Scottish Agricultural Organisation Society

SBA:

Scottish Beef Association

SCB:

Scotch Butchers Club

Scope 1 and 2 Emissions:

Scope 1 emissions are direct greenhouse gas (GHG) emissions from sources controlled or owned by an organisation. Scope 2 emissions are indirect GHG emissions associated with the purchase of energy

ScotEID:

Scottish Electronic Identification. Where producers register animals born and record movements on and off the holding.

Scottish Red Meat Resilience Group:

Industry leadership body designed to provide a collaborative working mechanism for member organisations within the Scottish red meat sector.

SDI:

Scottish Development International. Scottish Development International is the international arm of the Scottish Government and Scotland's enterprise agencies.

SEFARI:

Scottish Environment, Food and Agriculture Research Institutes.

SOPA:

Scottish Organic Producers Association.

Scottish SPCA:

Scottish Society for the Prevention of Cruelty to Animals.

Store animals:

Sale of animals that are ready to be finished.

UKCEP:

The UK Export Certification Partnership





