

An Agricultural Knowledge and Innovation System (AKIS) in Scotland: a paper for informal discussion

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1. Introduction

An **Agricultural Knowledge and Innovation System (AKIS)** is the combined organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields. It is a key component of the European Union Common Agricultural Policy 2023-27 and the Scottish Government's Agricultural Vision and [Tier 4](#) of the associated support package beyond 2025. It is a complementary support measure that focuses on people development and will come into operation on 1 April 2027.

This paper seeks to stimulate informal discussions on options for an AKIS in Tier 4 of the Vision of Agriculture Support Package Beyond 2025.

Following these initial discussions, there will be further opportunities for engagement and it is expected that there will be public consultation on secondary legislation and how AKIS should be introduced.

Annex A sets out background information relating to the AKIS, its place within the Vision of Agriculture Support Package Beyond 2025, and the importance of support for knowledge and innovation in Scottish agriculture.

2. Basis for this discussion paper

The options in this discussion paper are drawn from a consideration of the research report [Establishing an agricultural knowledge and innovation system](#) (June 2023).

This report was commissioned by the Scottish Government funded ClimateXChange and was led by a team of researchers at The James Hutton Institute led by Professor Lee-Ann Sutherland. It set out to provide an evidence review and options appraisal for an AKIS in Scotland. The researchers set out and discussed **35 options under six themes**.

The researchers noted at Annex 9.3 of their report that whilst Scotland already had an AKIS, there was scope for improvement and that a number of significant actions were needed in order to create "a responsive, inclusive AKIS for Scotland".

They suggested that "many of the options would represent a major re-organisation and re-allocation of resources". These included "carving new pathways between actors, and rethinking service provision," as well as "detailed planning and consultation" to "ensure that new approaches add value". In particular, the researchers suggested that there was a need for a collaborative approach across different policy areas "to achieve an effective, system-wide transformation". They also noted that an expansion of the AKIS would need resources to be reorientated or increased.

These are all important points that need to be considered in how we take forward the AKIS from 1 April 2027. We will need to consider the wider context and Scottish Government ambitions, including those for agriculture, net zero and biodiversity, and Just Transition. We currently have a number of key initiatives underway relating to

knowledge and innovation, including the [Farm Advisory Service](#), support for [women in agriculture](#), and the [Knowledge Transfer and Innovation Fund](#) (KTIF), that we assume will continue to be taking forward in some form within the AKIS.

3. Themes for developing an AKIS

This discussion paper is arranged around six themes. These are:

- Theme 1: Creating a unified AKIS
- Theme 2: Regionalisation and specialisation
- Theme 3: Supporting peer-to-peer learning and farmer collaboration
- Theme 4: Promoting diversity and generational renewal
- Theme 5: Digital opportunities and upskilling
- Theme 6: AKIS capacity building.

4. Theme 1: Creating a unified AKIS

This theme is concerned with how we increase collaboration between the key players within the AKIS.

Scotland currently has an informal AKIS, a system which links organisations and institutions. This includes the Farm Advisory Service (FAS), Knowledge Transfer and Innovation Programme, the Monitor Farm Network and various informal linkages between the Scottish Government, its agencies and NGOs. A diagram of this system is included in Annex 9.3 of the research report entitled “[Establishing an Agricultural Knowledge and Innovation System](#)”.

The current AKIS in Scotland has both strengths and weaknesses. A key ambition of the Scottish Government’s development work is to ensure that stakeholders in the AKIS are better connected and that there are more effective knowledge and innovation flows.

While we are aware that there are a number of different models that have been used to set up an AKIS in other European counties, we want to ensure that we develop our AKIS in a way that makes best use of our strengths and opportunities.

We are looking for your views on how best this could be achieved. We have set out three different approaches that could be used.

The first approach is to create an AKIS where all the publicly funded organisations, private advisory services, colleges, universities and main research providers in the AKIS are formally integrated with one another. This is an approach has been used by [Teagasc](#) in Ireland. We recognise that while this could, in theory, be delivered, it would need significant collaboration to achieve. This option was not favoured by the researchers on the grounds that it would be very complex and expensive to do well, but the Scottish Government would be interested to receive feedback from stakeholders on the degree to which, if any, the option might be further explored.

Question 1: Should the AKIS in Scotland be one that formally integrates the publicly funded organisations, private advisory services, colleges, universities and main research providers? Please give a reason for your answer.

Answer: This would be complex and expensive to set up well. It sounds similar to the FAS service but sometimes they are lacking in organic expertise as organic is so specialised. We can see the value of an AKIS portal where resources can be stored that becomes a one-stop-shop, but where the publishing organisations retain the credit for the knowledge. Somewhat similar, but not as large as the EIP-AGRI database of projects in the EU. Although we recognise the cost of setting this up and administering, it would likely outweigh the benefits.

The research report identified that an alternative approach might be to set up a formal AKIS governance structure through a secretariat or oversight board that brings together key players and provides strategic direction for the AKIS. We are aware that this structure could be delivered in a number of ways. A Secretariat has been suggested as well as an Oversight Board, though we recognise that there may be other structures that could be used. The FAS currently has a stakeholder group that meets quarterly that could be used as part of this new structure.

Question 2: Should the AKIS be co-ordinated through a governance structure such as a Secretariat and / or an oversight board or similar structure? Please give a reason for your answer.

Answer: Yes, a governance structure would be good. We need advisors to maintain skills, experience and qualifications (assessment based). Organics is more holistic than the FBAASS accreditation allows, it needs more specialist advice rather than just business plan style.

Question 2a: If you answered yes, what could this governance structure look like?

Answer: It would need to be mapped to the organic sector needs as well as other sectors.

The third approach is for the Scottish Government to provide direct support to a broader range of organisations. This would redistribute financial resources directly to more organisations, but perhaps reduce cohesion and/or operational efficacy.

Question 3: Should the Scottish Government redirect its financial resources so that it provides subsidised advice to other organisations, whilst recognising the role they play in supporting knowledge and innovation? Please give a reason for your answer.

Answer: This would be the best fit for SOPA and we would support the democratisation of support for advice and knowledge sharing. We feel that there is not a level playing field for the provision of good quality advice, particularly that meets the needs of our members. The opportunities for future targets such as Net Zero, Biodiversity and Climate Change in Scottish Agriculture (PLC) will need to tap into expertise from the organic sector, and this should be supported.

We plan to introduce a strategic plan setting out the vision for AKIS and how actions will be progressed to achieve that vision. This will include a description of the AKIS, how the stakeholders in it work together, and how advice and innovation support services will be provided.

Regular monitoring and evaluation is an important way to help review how a policy is working in practice and inform changes that need to be made to it to ensure that it is meeting its objectives and outcomes. This can take a number of forms, including formal evaluation undertaken at regular intervals. We intend to establish regular monitoring and evaluation of the AKIS.

5. Theme 2: Regionalisation and specialisation

This theme is concerned with how we ensure a more targeted AKIS which meets regional and specialist needs.

Scotland has distinct farming regions, each associated with particular types of agriculture and agricultural practices. The research report suggested that there is a need for a diverse range of knowledge and advice and for different innovations to be used across these sectors.

Whilst the Scottish Government recognises that there are diverse agricultural practices in different areas of Scotland, we would suggest that the country is small enough for stakeholders to know one another and make their individual needs known. They may however not always be connected as effectively as they might.

There is currently some provision for both regionalisation and specialisation in the FAS. It provides a wide range of advice built around seven topics: animal health and welfare; crofts and small farms; crops and soils; developing people; natural capital; new entrants; and thriving through change. It also provides a range of events, videos and other media relating to good practices throughout Scotland. The [FAS Connect](#) programme also brings together farmers, crofters and others within specific geographical areas to focus on issues that are relevant to them.

We want to ensure that farmers, crofters and land managers are able to easily access advice that is applicable to their geographical area as well as specialist advice.

Question 4: Do you agree that there is a need for a regionalised approach in Scotland, potentially involving additional layers of governance?

Answer: Probably in other areas of farming but regionalisation is much less relevant in the organic sector. Within our membership we represent organic farms from Shetland to Dumfriesshire. Our members have different farming traditions and enterprises, but they are all held in the common bond of organic food production. Our expertise has piloted delivering organic advice at a regional level (member events where farmers come from the whole region to network, share learning). On a daily basis we deliver specialist organic advice and we understand it is imperative to recognise regional differences.

Question 4a: If so please state your reasoning, together with details of how this could be embedded in the AKIS.

Answer: We don't believe there needs to be additional layers of governance, there just needs to be recognition of different audience needs, and the availability of quality advice from qualified professionals. This entails trained staff who work closely with the farmers so they understand their needs. One to one advice is at least bespoke

Question 4b: Alternatively, do you think that the current approach to recognising regional diversity through the FAS could be improved? If so, please explain.

Answer:

5.1 Advice for crofters

There is currently a wide range of support and advice available for crofters. The Crofting Commission has a dedicated page on its website, which contains links to sources of advice and support for crofters. The Scottish Government's report on [The Economic Condition of Crofting 2019-22](#) sets out the measures taken by the Scottish Ministers, the Crofting Commission and others to support crofting. [Chapter 7](#) notes that crofters are aware of, and would use, advice from a wide range of sources, including the Crofting Commission, RPID, crofting organisations, the crofting community, family and friends, and the FAS where there is a dedicated crofter and small farmer workstream.

Question 5: Given the diverse range of sources that crofters already consult for advice, how can we ensure that they get easy access to the best advice and innovation support?

Answer: This depends on the ability of our members to tap into events or access the internet. By nature, the crofting counties are remote which presents connectivity challenges and can restrict access to services, e.g. lack of or unreliable internet connection, lack of specialised local events and distance and time to travel to events.

Although there is a range of sources available to crofters, these may not be easily accessible and given the complex nature of the regulations which apply specifically to crofts, can be extremely difficult to understand. Time is a crucial resource that

crofters and farmers can't afford to waste. In many instances, it is quicker and more personalised to pick up the phone and speak to someone as opposed to sifting through an abundance of information online.

5.2 Knowledge Transfer and Innovation Fund (KTIF)

[KTIF](#) is one of our key policies to support knowledge exchange and innovation.

We recognise that it will be crucial for KTIF to be able to meet the changing needs of agriculture, new developments and our stakeholders. We have started to evaluate the current programme and this work will feed into our considerations of how we shape the fund post 1 April 2027.

Question 6: What changes if any do you consider should be made to KTIF to encourage more skills support?

Answer: Consider smaller projects with a shorter time span, and expand the remit to practical approaches to achieving biodiversity, net zero, soil goals. It would be valuable to streamline and reduce the admin burden where. Democratise the funding so that it is open to more people and easier for smaller organisations to tap into. QMS seem to dominate the fund and they are big enough to employ dedicated admin staff to manage the projects. SOPA would love to do more KTIF projects but the admin and application burden is too much in the current format. We have found that developing small, bite size projects that are farmer led and not funded, can have quick results without constraints.

Question 7: What changes do you consider should be made to KTIF to encourage more collaborative development for innovation?

Answer: Our members tell us they prefer knowledge exchange rather than knowledge transfer hence why we set up the Scottish Organic Cereals Network. We facilitate this alongside AHDB Scotland and have run several KT events online and on-farm along the principle 'by the farmer for the farmer'. The Network is farmer-led has a very engaged Whatsapp group dominated by farmer-to-farmer chat. They ask questions of each other and share their experiences. It is hugely valued. Building a collaborative network needs to feel inclusive and participative.

The use of facilitators supports individuals and groups in knowledge transfer and innovation. Facilitation can, for example, help groups perform more effectively, support their work, and help develop innovative solutions and outcomes across a wide range of tasks.

Question 8: What is KTIF doing well that you would like to see maintained?

Answer: The RPID KTIF team are very good to work with.

Question 9: Should support for facilitation be included within the scope of the Fund for example, to include projects with an environmental focus?

Answer: Yes, facilitation is key otherwise things fall apart. There is a need to ensure that there is enough funding in projects for qualified facilitation, preferably participative. Staff training for modern participative techniques would lead to better advice provision at group scale.

Question 10: How can we increase the quality and number of applications that we receive under the Fund?

Answer: Don't let it be dominated by large organisations, bring smaller and innovative projects to the fore and reduce the burden of project administration.

6. Theme 3: Supporting peer-to-peer learning and farmer collaboration

This theme is concerned with how we increase on-farm innovation through peer-to-peer learning and farmer collaboration.

Peer-to-peer learning and farmer collaboration are key ways to support knowledge and innovation. Research demonstrates that farmers, crofters and other land managers most commonly identify to their peers (i.e. other farmers and crofters), as their best sources of advice.

The FAS provides a number of activities to support peer-to-peer learning and farmer collaboration. These include farm visits, demonstration events, and [FAS Connect](#) groups. The [Monitor Farm Scotland](#) programme also provides opportunities for farm visits and other demonstration events.

We want to increase the use of peer-to-peer learning and farmer collaboration as we recognise that this is a key element within the AKIS and presents an opportunity to share knowledge and ideas on innovation.

The following are a number of ways that this could be undertaken:

6.1 On-farm demonstrations

On-farm demonstrations are an important way to disseminate information about a wide range of subjects, including new technologies. They are practical events that allow participants to see and experience things for themselves. They can be arranged by a wide range of providers and in a number of ways, such as one-off or a series of events, and be delivered locally, regionally or nationally. They can also be delivered formally or informally.

The FAS provides on-farm demonstrations as well as other events such as farm visits, farm walks and nature walks. The Monitor Farm Programme operates throughout Scotland and provides opportunities for farmers, crofters, land managers

and advisers to attend demonstrations (including innovation) as they are implemented.

Question 11: How can we better support and co-ordinate on-farm demonstrations?

Answer: We would like to see more specific funding (ie ring fenced funds) for on farm events and farmer networking groups. Smaller group events are hugely valuable and don't have to be expensive. We'd like to see a similar programme that runs along the lines of the SFI scheme – a small set-fee per event evidenced by attendance records and feedback from the event. Ideally this would mean quality events can be free for farmers to attend and support engagement with no specific targets met for number of attendees. Some of our best events have been smaller groups because there is plenty of social interaction, not only good for KE but also mental wellbeing.

Question 12: How can we encourage an increased use of on-farm demonstrations by a wide range of players throughout the AKIS?

Answer: Our audience is very niche (more specific, targeted) so for us it is about quality not quantity of events nor quantity of attendants.

6.2 Research and trials and demonstrations

Researchers play an important role in developing innovations that can be used in agriculture. However, there can be a gap between what researchers develop and what is needed. Not all farmers, crofters and land managers are aware of what applied research is being undertaken and what they could benefit from.

Question 13: Should funding be available to trial and or demonstrate applied research?

Answer: Yes this is very valuable. SOPA would like to be able to tap into funded R&D trials work with institutions on-farm, such as the John Hutton Institute, the Rowatt Institute, The Organic Research Council, Research Universities.

Question 13a: What elements of these trials and or demonstrations could be funded or supported?

Answer: Contributions to having / hiring machinery for on farm events would be valuable. Would be useful to have machine manufacturers present at meetings to speak to and assess exactly what it is farmers need for organic farming. Often generic machinery, particularly for example seed drills for direct drilling in arable systems or compost making systems for organic matter incorporation into the soil, is bought then modified by the farmer to suit the organic situation. Adapting and

modifying machinery to suit organic systems is vital. Trials, demonstrations and follow up are needed in this area.

6.3 Farm visits

Organised group visits to farms, for example as part of an organised programme of knowledge exchange, can be a valuable way to understand different practices, compare experiences and learn from each other. These include Farmer (field) stable schools, a concept developed in Africa and adapted to European countries. They might involve cross or short exchange visits involving small groups visiting different regions and countries.

Question 14: Should there be support for organised group visits to farms to learn new approaches and see new innovations?

Answer: Yes, particularly support for international experts to come over and do a tour, be involved in Scottish meetings / visits. International trips for farmers are also valuable for example the ScoCan group visited Sweden to look at growing oil seed rape. Trips within the UK - England, Wales, are also valuable for KE.

Question 14a: In what circumstances could these visits be funded and or supported?

Answer: These could be match funded by organisations if not expensive, they could have a capped fund if involving international travel.

6.4 Mentoring

The FAS provides mentoring for new entrants into farming. This provides up to 4 days of a mentor's time. In 2022 there were 22 applications for mentoring.

Question 15: How can we increase the uptake of mentoring for new entrants?

Answer: Is it well known this if offered? People prefer to hear from peers rather than knowledge transfer so having a buddy system for new organic converters would be useful. SOPA are keen to investigate an organic mentoring programme on a trial basis by this method. We believe there should be incentives and compensation for the mentor farmers for their time and expertise (eg claim for a daily rate).

7. Theme 4: Promoting diversity and generational renewal

This theme is concerned with maximising the involvement of farmers, crofters and land managers and up-take of the AKIS.

We have a wider vision for Scottish agriculture to become a fairer, more inclusive industry, where farm succession is not determined by gender, training is accessible to everyone, and more women take on senior roles in organisations. In addition, the Bute House Agreement specifically commits to providing more support for women in agriculture and for new and young entrants into farming.

We provide a wide range of support for different groups in agriculture including young people, new-entrants, and women as well as crofters and small farmers. We need to ensure that under-represented groups are supported.

Question 16: How do we improve access and take up of support for different groups in the AKIS, such as young people, new-entrants, women, crofters and small farmers?

Answer: In SOPA we feel we do quite well in this regard, with a staff of 100% women, and more than 1/3 of our board are female directors (also active farmers) but perhaps generally this is too exclusive, some people don't have a voice. It's difficult to force this as individual circumstances and personalities are very different. We do feel analysis of the target audience needs (bottom up instead of top-down) would be valuable to assess better ways to attract a more diverse audience, as well as to meet their needs. SOPA sat on the recent pilot for Small Farmers and the social side of this could be further explored. The Small Farmers Pilot concentrated on business activities (small abattoirs and capital items) so we would like to see a similar process set up for other minority groups in Scottish Agriculture, that also considers social avenues and online social networking (such as the Ladies who Lamb UK facebook group which is exclusively women and holds 14,500 members).

7.1 New users to the AKIS

We are aware that new groups will be brought into the scope of the AKIS. We need to consider how and what provision we make for them and ensure that they are supported.

Question 17: What new groups might benefit from engagement through the AKIS?

Answer: SOPA would really value the opportunity to run informal groups for engagement in the organic sector, ie to help to build the organic network.

Question 17a: How could we support them to engage effectively?

Answer: By promotion and funding for a facilitator.

7.2 Demonstrating competence through apprenticeships

We recognise that it is crucial that young people have strong skills that can be put to good use by employers in agriculture. This can be demonstrated in a number of ways, such as through courses in educational institutions as well as pre-apprenticeships and apprenticeships.

Apprenticeships are an important tool as they can serve to address youth employment and develop Scotland's workforce. They are funded by the Scottish Government and delivered by the national skills body, Skills Development Scotland.

We recognise the work being undertaken by [Ringlink](#) and its partnership Machinery Rings with their land-based pre-apprenticeship programme, preparing young people for employment in agriculture and the wider rural sector. This is currently being supported on an extended pilot basis.

Question 18: Is there any scope to better utilise agricultural apprenticeships, including agricultural pre-apprenticeships, to demonstrate competence in agriculture? If so, how?

Answer: This is valuable and SOPA would love to see more of it but in practice on farm it is very difficult. Farmers often don't have the time or the finances to train an apprentice and are not covered by insurance (health and safety) to let them participate in hands-on jobs. We have questions on time, rural housing and financial support for an apprentice - these are all issues for farmers. Perhaps more integration with organisations like RHET, Ringlink, Skills Development Scotland could provide support here (eg school visit programmes, education on food, farming and nutrition), but we currently do not have the staff resource to develop an organic apprenticeship scheme.

7.3 New entrants and succession

New entrants

We recognise that new entrants are vital to the future of Scottish agriculture. They drive innovation and best practice, improve efficiency and contribute towards the economic vitality of the sector. However, we acknowledge that more can be done to better support the next generation.

We provide a range of support for new entrants. This includes working with the FONE Group (Farming Opportunities for New Entrants) which is taking forward new entrant, succession and next generation support, and is acting as a stakeholder group for new entrant support in Scotland and providing governance to new entrant support under the SRDP; the Scottish Land Matching Service (SLMS); the provision of Young Farmer and New Entrant support under the national reserve. In addition, the FAS provides a broad range of support such as a free mentoring programme, a

New Entrants to Farming Programme and fully funded Integrated Land Management Plans.

There is a Manifesto commitment to provide more support for new and young entrants into agriculture, so we wish to seek views on what further opportunities we could create.

We recognise the importance of succession in agriculture. In our Vision for Scottish Agriculture we want to ensure that businesses' succession arrangements are delivered in an equitable fashion, without preference or bias. We do so by providing support to all through; SLMS, the FAS, including 1:1 specialist advice, events, tools, podcasts and videos.

Question 19: What further opportunities can be provided to deliver more equitable support to new entrants/the next generation of rural worker?

Answer: PR, Scottish land matching service. Farmers often need a trusted person they can open up to about succession as it is a very emotive subject. Developing a successful route to succession very much depends on finding the right person. We do consider agricultural accountants could have a role.

Question 19a: What more could be done to support less well represented groups?

Answer:

Question 20: What new entrant/next generation support is working well and you would like to see maintained?

Answer: There are some very good examples of succession and forward thinking within our membership. In particular the younger generation carving out diversification /innovation ideas and making the farm more profitable.

Question 21: How can we encourage a greater uptake of succession planning?

Answer: Using trusted key advisors / accountants, who can handle relationships sensitively – qualified people from agriculture are essential, and those who have the emotional intelligence to build trust across generations.

8. Theme 5: Digital opportunities and upskilling

This theme is concerned with the mechanisms that are needed to support digital upskilling, digital technology adoption and big data mobilisation.

We recognise the importance of supporting businesses to be more competitive by speeding up the development and uptake of digital innovations.

We provide strategic direction for digital support through the [Digital Strategy for Scotland](#). This includes improving and extending broadband and connectivity, running digital skills programmes and ensuring digital public services are high quality. There is a range of digital support available. This includes digital transformation support from Scottish Enterprise. Business Gateway provides [DigitalBoost](#) to help businesses get greater benefit from digital technologies.

The FAS has a digital workstream. It also provides advice including business management, digital compliance, digital security and digital tools.

Question 22: Are there gaps in the support to help agricultural businesses develop and uptake digital innovations?

Answer: It is a real barrier that rural businesses need to rely on having good broadband and mobile network coverage in order to reach out socially and promote their businesses, especially in more remote areas. Infrastructure is the main problem here. Another is the gap in farmer skills, older generation versus younger.

Question 22a: If yes, what are they and how could support be improved?

Answer: We have to accept that the older generation can be sceptical about digital innovations, so can we develop learning programmes that show how beneficial digital innovation can be, alongside online safety. It would also be of benefit for training for organisations in online innovation eg running professional webinars to improve the delivery of online training.

8.1 Digital opportunities

The rise of digital opportunities, including the internet, and the growth of on-line advice through a variety of means, including websites, tools, platforms etc has brought significant changes to how we access and use knowledge. It has made accessing information easier and quicker, but its growth has meant that it can be difficult to find specific information.

Resources such as the FAS can help to bring together a number of different digital tools to disseminate information, while recognising that not all users access and use them in the same way.

The FAS, through FAS TV and its videos, currently include a number of virtual demonstrations, for example, showcasing farms where new or innovative technologies are used, or successful diversification activities have been introduced.

Live events have also been streamed. These include the Royal Highland Show and Arable Scotland in 2020. There could also be other demonstrations and events made virtual through live video and virtual tours.

Social media platforms have significantly changed how we interact with other people and businesses. They could be more widely used to provide skilled and competent advice and improve the quality of information available. For example, within the FAS, Facebook groups could be set to address specific topics. The use of group chat apps could also help.

Question 23: How can we make better use of the existing and emerging digital opportunities for knowledge exchange and innovation?

Answer: Having events recorded and stored for access to those who cannot attend is hugely useful. As a small organisation we find WhatsApp is hugely useful for knowledge exchange. Farmer group chats are a good way of getting engagement. For small organisations it can be difficult to bear the cost of producing online programmes (webinars, podcasts etc) as the skillset is so specialised.

Question 24: How can we make more use of virtual demonstrations for disseminating knowledge and innovation?

Answer: Using platforms that are easily accessible such as zoom or teams are extremely valuable. These can then be uploaded to you tube for people to refer to at a later date. Disseminating knowledge in this way has become hugely beneficial but this needs to be made more accessible to everyone through infrastructure provision and training of how to access. The cost of professional productions is a barrier.

Question 25: How can we make better use of social media for knowledge exchange and innovation?

Answer: Social media should be used as an awareness raising and storytelling tool. Telling the right story gets the best engagement. Personal stories and experience is the content that receives the highest level of engagement. Encouraging people to tell their stories is the best way to do this. This could be achieved by providing training to those that aren't familiar or confident with social media.

Question 26: Any other ideas/suggestions?

Answer: Just a note that running digital/online groups does need management or facilitation and this cost can be a barrier.

8.2 Benchmarking

Benchmarking is recognised as a tool for driving and motivating behaviour change.

The FAS has developed a number of benchmarking tools. These include [An introduction to benchmarking for sheep](#), [Performance targets for small herds](#) and an [Argyll Farm and Croft KPI tool](#). The annual Scottish Farm Business Survey is

compiled to accurately measure activities on the main farm types found in Scotland. This has led to the development of the [Whole Farm Benchmarks Tool](#). Carbon audits undertaken through the FAS also enable farmers, crofters and land managers to benchmark themselves against other farms and crofts. [MyHerd Stats](#) is another example of a benchmarking tool for cattle herds.

Question 27: How can we encourage greater and better use of benchmarking?

Answer: Benchmarking is a massively underused but hugely valuable tool that many of our farmers that take part in benefit from. Often farmers feel it's not for them though so the benefit of it really needs selling as it is so important for comparisons of systems. Time is often an issue and providing networking ie encouraging engagement and collaboration rather than top down knowledge transfer is invaluable for knowledge sharing and learning. We offer a Whatsapp communication group that really helps farmers compare ideas but it really is a core group that engage.

We know that organic benchmarking doesn't really exist elsewhere, and too often the KPIs are not fit for organic purpose. It's like trying to fit square pegs into round holes – the conventional KPIs don't work for organic systems because they don't account for the natural capital or holistic benefits. Conventional benchmarking is driven by efficiencies which is not always the primary driver for organic farmers.

More possibilities for benchmarking on a number of different platforms would be most welcome.

9. Theme 6: AKIS capacity building

This theme is concerned with skills development, training and continuing professional development (CPD) in agriculture and the recognition of good practice.

9.1 AKIS networking events

The FAS currently runs events that bring together farmers, crofters and other people in agriculture. While they allow them to network, they are not in themselves specifically arranged as networking events.

There are a number of networking events in Scotland such as those run by the Monitor Farms Programme and attendance at agricultural shows events, including the Royal Highland Show, and industry events such as AgriScot.

Additional and different networking events across the AKIS might help to bring together a range of players across the AKIS to improve knowledge exchange and innovation development across the sector. They could support best practices, share ideas on innovative projects, provide updates on developments, and stimulate Operational Group Projects. They could be national or regional and held at varying frequencies.

Question 28: Should there be additional networking events across the AKIS? If so, what kind of events, and where and when should they be held?

Answer: SOPA have piloted networking events that have been very successful in terms of building relationships, cross working with other organisations, increased member enquiries and a memorandum of understanding being put together with the Soil Association. It would certainly be valuable to have funding for such events in order to move them to an established practice and to stop the cost always being put back to the farmers.

Question 29: Are there any current examples of networking events that you have found particularly helpful?

Answer: SOPA delivered a National Organic Conference in 2023 which was very well received with 80+ delegates. Based on the feedback we are organising a 2024 conference targeting organic farmers and food businesses. However, without financial support the event would not be feasible. Bringing people together for networking has proven to be really stimulating not just for trade, but learning new thinking as well as the social aspect of meeting people in similar situations.

9.2 Training for facilitation

Facilitation is a key skill used by advisors for encouraging collaboration, and peer-to-peer learning. It can help to motivate participation, involve group members in a safe space, guide and stimulate discussion, negotiate conflict, and challenge thinking. It can help transform the outcome of discussions and help find and reach innovative solutions that may not be reached in other ways.

We recognise the importance of facilitation and the potential need for accredited training in facilitation. Provision could be made for training in a number of ways, for example, within the proposed CPD system, as part of the training for Farm Business Advisory Service Scotland (FBAASS) advisors and their accreditation. The FBAASS advisers are able to deliver grant-aided advice within the Farm Advisory Service (FAS).

Question 30: How best could accredited training for facilitation be taken forward?

Answer: We agree that facilitation is hugely important as mentioned previously but the FBAASS accreditation system needs to be reviewed for organisations such as ours. Organic farming is far more holistic and not just business plan orientated. Support for organisations to train staff, especially in modern participative techniques fostering quality knowledge exchange would be welcomed.

Question 31: Should the option for training in facilitation be extended to all advisors in Scotland or only specific ones such as those accredited under the Farm Business Adviser Accreditation Scheme for Scotland [FBAASS](#)?

Answer: [Most definitely all.](#)

9.3 Bringing together agriculture and applied research

We consider that there is a need to make applied research more accessible in agriculture. The section on research trials and demonstrations (section 6.2) asks questions about bringing together trials and demonstrations of applied research for agriculture. We recognise that this is one way that they could be brought together. There may be other ways that this could be achieved.

Question 32: How do we bridge the gap between applied research and advice in agriculture?

Answer: [It is difficult for farmers to obtain reliable information or to know who to ask for it. Some information is not freely accessible to the public and is only for research / educational institutions. The SF&D Knowledge Bank is very useful, this kind of thing for organic farming literature would be beneficial. Publicly funded research particularly should be more accessible to all.](#)

[At SOPA we'd love to engage more with research institutions such as the John Hutton Institute, the Rowatt Institute, The Organic Research Council, Research Universities; in order to see what benefits we can procure for organic farmers in Scotland. There is a tradition of applied organic research being made to fit into trials that are not organic, or not long enough. The Craibstone trials were hugely beneficial for grass and cereals that fit Scottish climate and geography. Holistic and long term trials would be beneficial for Scotland's organic farmers. Our members are interested in exploring composts, microbiological teas, technology in weed control, and soil carbon measurement over longer periods of time.](#)

9.4 Continuing professional development (CPD) for farmers and advisors

We recognise that CPD for farmers, crofters and land managers encourages and facilitates personal and professional development, and improvement in practices, in agriculture, land management and other associated vocational fields.

We do not currently provide support for CPD for farmers, crofters and land managers. We have included provision for CPD under the [Agricultural Reform Programme](#) (ARP). This falls under Tier 4, complementary support. Powers to deliver CPD, including a CPD system, are included in the Agriculture Bill. These will enable the Scottish Ministers to have discretion to design and introduce a CPD system and also to extend the use of CPD to others in agriculture.

While we recognise that there are views both for and against compulsory CPD for farmers, crofters, land managers and advisors, this falls out with the scope of this discussion paper. Instead, however, we merely wish to seek views on how we could introduce a CPD system, and what should be included in it, irrespective of whether it is compulsory or non-compulsory.

We are aware that farmers, crofters and land managers undertake CPD in different ways and to different extents. Some do not undertake any formal training but instead learn on the job, or learn from other family members or neighbours. This way they continue to develop their knowledge and skills. They may also attend events through the FAS, such as farm walks, nature walks, demonstrations, or formal events arranged as part of securing entrance and continued participation in a quality assurance scheme.

Question 33: What types of activities should be made available in the CPD system?

Answer: CPD should be open to all staff (not just the business owner) and relevant to the farm business. CPD needs to be on a voluntary basis and any formal training also needs to be provided online. If organic qualifications were to be delivered we would wish to be involved in the development and assessment of short CPD type courses. Points for attending certain bite-size CPD and a capped yearly compensation ability to claim for certificates gained (for time off and engagement) would be useful.

Question 34: What kinds of support need to be provided to encourage uptake of CPD?

Answer: Financial compensation. Succession planning could be an option. A good example is the application and claims process used in the SFI scheme.

Question 35: Should the FAS have a role in providing some CPD for farmers, crofters and land managers? If yes, what should this role be?

Answer: Not just FAS but Lantra, SOPA and similar organisations should all be CPD providers. Democratising the programme gives smaller organisations the ability to help develop programmes relevant to their members / sectors. It should not be exclusive to only FAS who are spread too thin to have qualified expertise in specialist topics.

Question 36: How much CPD should farmers, crofters and land managers undertake in a year? (hours / days) Please give a reason for your answer.

Answer: If there is a cost to the business for the course then a cap of eg £500 per person involved in the business (as long as has a holding and a BRN number), per year could be set. Proof of payment and attendance would need to be provided. SFI scheme is a good precedent to follow.

We recognise that it is important for advisors to be continually trained and have up-to-date knowledge on a range of topics. Only advisors who are quality assured and receive accreditation are able to deliver grant-aided advice for Integrated Land Management Plans and Carbon Audits within the FAS. This is through FBAASS accreditation for advisors and associates delivered by Lantra.

Question 37: How can we encourage a greater number of advisors to come forward for FBAASS accreditation?

Answer: As previously mentioned the FBAASS accreditation system is too limited for organic farming systems. There needs to be a more holistic version with environmental accreditations too.

Question 37a: Should FBAASS accreditation be formally extended to cover other elements of the FAS, including specialist advice topics (e.g. biodiversity/habitats, forestry etc?

Answer: Yes, see above.

10. Annex A Background to this discussion paper

This Annex includes background information that relates to the development of the AKIS and current Scottish Government support for knowledge and innovation in agriculture.

10.1 The wider context for the AKIS

Tier 4 of the Vision of Agriculture Support Package Beyond 2025 is a complementary support measure that focuses on people development and measurement tools. Included within the tier are new skills, knowledge, training and continuing professional development (CPD) as well as advisory services and business support. This tier is intended to be complementary to the other tiers: Tier 1 Base Level Direct Payment; Tier 2 Enhanced Level Direct Payment; and Tier 3 Elective Payment.

The Vision of Agriculture Support Package Beyond 2025 is the Future Support Framework for Scottish Agriculture. It is the new Scottish approach to the EU CAP. The support package will help to deliver the Scottish Government's [Vision for Agriculture](#), published in March 2022, which built on the work of the farmer led groups and extensive consultation [Agriculture Transition in Scotland](#). Our overall vision is that we will transform how we support farming and food production in Scotland to become a global leader in sustainable and regenerative farming. [Regenerative agriculture](#) is a collection of farming practices with a focus on renewing and conserving soils, landscapes and ecosystems.

The Vision for Agriculture sets out that the Scottish Government will have the right support to achieve its vision. This includes support relating to skills, collaboration and knowledge exchange, specifically “identify and develop the skills needed for regenerative and sustainable farming, changes of land use and adaptation to the changing climate” and “encourage co-operative approaches to optimise collaboration and knowledge exchange”.

The powers that are needed to deliver Tier 4 of the Vision of Agriculture Support Package - as all the other tiers - are included in the Agriculture and Rural Communities (Scotland) Bill (the Agriculture Bill), were introduced in the Scottish Parliament on 28 September 2023. For Tier 4, these are powers that will allow the Scottish Ministers to support delivery of knowledge, innovation, education and training in agriculture and land use or related sectors. This will help to establish, develop, deliver or undertake a range of activities including courses of training or professional development, advice, research, the testing of innovations, and undertaking other research and development as well as the development of resources, digital tools or databases, including an AKIS. These will all contribute towards provision of support in relation to knowledge, innovation, education and training.

10.2 Wider policies for taking forward an AKIS

In developing the AKIS we need to ensure that it contributes to the following strategic frameworks:

- The Scottish Government's Vision for Agriculture;
- The Agriculture and Rural Communities (Scotland) Bill;
- The National Performance Framework outcomes;
- Programme for Government and Bute House Shared policy priorities;
- Verity House Agreement;
- Emissions and nature restoration targets;
- Just Transition which supports agriculture, land integration and land use change in a way that follows the Just Transition principles;
- Value for money; and
- Broad alignment to EU CAP objectives.

10.3 Routemap to 1 April 2027

Between now and 1 April 2027 we will develop the AKIS within the timetable set out in [the agricultural reform routemap](#), revised in June 2023. We will engage in a number of activities.

Following informal stakeholder engagement in 2024 we will undertake a formal consultation on the AKIS and CPD system. This will enable us to shape and refine our views.

We will then undertake consultation on the development of secondary legislation on the Ministerial powers to enable us to set up these systems.

We expect that procurement activities, for example, to acquire a farm advisory service, will commence a year prior to the 1 April 2027. Further details will be provided in due course.

10.4 The importance of support for knowledge, innovation, education and training

There has been a long recognition of the importance of knowledge, innovation, education and training within Scottish agriculture. More recently, the farmer-led groups in 2015-16 stressed the need for enhanced fit-for-purpose training, education and skills to enable farmers to improve their profitability and to become greener. In May 2018 the document [A Future Strategy for Scottish Agriculture](#) put forward recommendations for support in these areas. These were that “new policies must include a major increase in knowledge transfer effort, to help the industry reap the benefits of both existing and new research and development on, for example, reducing animal diseases or improving soil organic matter.” It also recommended that “there should be more advice and training, and in particular greater emphasis on business skills, as well as technical farming and land management skills.”

Knowledge, innovation, education and training help to underpin everything that is undertaken in Scottish agriculture. For example, knowledge transfer and innovation are key components in addressing skills gaps in the sector and deliver innovation through on-the-ground improvements in agricultural competitiveness, resource efficiency, environmental performance and sustainability. These all align with Scottish Government priorities for resource efficiency, net zero and biodiversity.

Approaches to knowledge exchange, learning and innovation in agriculture are rapidly evolving and changing in the twenty-first century. There is recognition that there are new and better ways to deliver and share knowledge, expertise and innovation than formerly. For example, the traditional model for advisory service provision was a “top down” model where qualified expert advisors responded to the needs of farmers with specific advice or information. It has shifted to one where there is recognition that innovation occurs through collaboration between different people and organisations, including specialists and advisors.

The AKIS is central to these new approaches. It is at the heart of the Common Agricultural Policy (CAP) (2023-27). As an integrated knowledge and innovation system, it is a concept that “recognises that innovation occurs through collaboration between different farmers, advisors, educators, researchers and industry organisations”. It is a “system of innovation, with emphasis on the organisations involved, the links and interactions between them, the institutional infrastructure with its incentives and budget mechanisms”. ([Establishing an agricultural knowledge and innovation system](#), p. 15).

Scotland currently has a diverse AKIS that provides advice and support to farmers, crofters and land managers. However, all the parts are not fully integrated. The key players or actors include the Scottish Government; the Farm Advisory Service (FAS), delivered by Ricardo and SAC Consulting; the agricultural research providers (SRUC, James Hutton Institute, Moredun Research Institute, The Rowett Institute, Biomathetics and Statistics Scotland (BIOSS)); university and college staff that focus on research; sectoral organisations that lobby government and provide advice; environmental charities that offer environmental advice; fee-for-service agronomic and business advisors. There are also input suppliers and supply chains that provide advice as part of their product or service provisions as also accountants, lawyers and bank staff.

10.5 Current Scottish Government support for knowledge and innovation

The Scottish Government provides a range of support to support knowledge transfer and innovation. The main components of this are:

The [Farm Advisory Service](#) (FAS) provides advice and support on a wide range of topics, the majority of which is free to users. This includes: events, videos, publications, technical notes, advice line, workstreams for groups including women, crofters and smallholders and new entrants. There is also one-to-one bespoke specialist consultancy advice on a range of topics, carbon audits, and Integrated Land Management Plans (ILMPs).

The [Knowledge Transfer and Innovation Fund](#) has two main aims: (1) to provide financial support to non-government organisations to promote vocational training, skills development and knowledge transfer projects that focus on agriculture / crofting; (2) to fund eligible innovation projects designed to support projects that introduce innovative approaches which enhance competitiveness; enhance microsystems; promote resource efficiency; and shift to low carbon climate resistance economy. Since 2015, the Fund has supported 52 projects with a value of £7.5 million.

The [Monitor Farm Scotland](#) programme is farmer-led and allows community groups to guide the programme; it enables the development of bespoke, regional knowledge transfer programmes that help build resilient farming and rural communities.

11. Annex B: Summary list of questions

Theme 1: Creating a unified AKIS

Question 1: Should the AKIS in Scotland be one that formally integrates the publicly funded organisations, private advisory services, colleges, universities and main research providers? Please give a reason for your answer.

Question 2: Should the AKIS be co-ordinated through a governance structure such as a Secretariat and / or an oversight board or similar structure? Please give a reason for your answer.

Question 2a: If you answered yes, what could this governance structure look like?

Question 3: Should the Scottish Government redirect its financial resources so that it provides subsidised advice to other organisations, whilst recognising the role they play in supporting knowledge and innovation? Please give a reason for your answer.

Theme 2: Regionalisation and specialisation

Question 4: Do you agree that there is a need for a regionalised approach in Scotland, potentially involving additional layers of governance?

Question 4a: If so please state your reasoning, together with details of how this could be embedded in the AKIS.

Question 4b: Alternatively, do you think that the current approach to recognising regional diversity through the FAS could be improved? If so, please explain.

Question 5: Given the diverse range of sources that crofters already consult for advice, how can we ensure that they get easy access to the best advice and innovation support?

Question 6: What changes if any do you consider should be made to KTIF to encourage more skills support?

Question 7: What changes do you consider should be made to KTIF to encourage more collaborative development for innovation?

Question 8: What is KTIF doing well that you would like to see maintained?

Question 9: Should support for facilitation be included within the scope of the Fund for example, to include projects with an environmental focus?

Question 10: How can we increase the quality and number of applications that we receive under the Fund?

Theme 3: Supporting peer-to-peer learning and farmer collaboration

Question 11: How can we better support and co-ordinate on-farm demonstrations?

Question 12: How can we encourage an increased use of on-farm demonstrations by a wide range of players throughout the AKIS?

Question 13: Should funding be available to trial and or demonstrate applied research?

Question 13a: What elements of these trials and or demonstrations could be funded or supported?

Question 14: Should there be support for organised group visits to farms to learn new approaches and see new innovations?

Question 14a: In what circumstances could these visits be funded and or supported?

Question 15: How can we increase the uptake of mentoring for new entrants?

Theme 4: Promoting diversity and generational renewal

Question 16: How do we improve access and take up of support for different groups in the AKIS, such as young people, new-entrants, women, crofters and small farmers?

Question 17: What new groups might benefit from engagement through the AKIS?

Question 17a: How could we support them to engage effectively?

Question 18: Is there any scope to better utilise agricultural apprenticeships, including agricultural pre-apprenticeships, to demonstrate competence in agriculture? If so, how?

Question 19: What further opportunities can be provided to deliver more equitable support to new entrants/the next generation of rural worker?

Question 19a: What more could be done to support less well represented groups?

Question 20: What new entrant/next generation support is working well and you would like to see maintained?

Question 21: How can we encourage a greater uptake of succession planning?

Theme 5: Digital opportunities and upskilling

Question 22: Are there gaps in the support to help agricultural businesses develop and uptake digital innovations?

Question 22a: If yes, what are they and how could support be improved?

Question 23: How can we make better use of the existing and emerging digital opportunities for knowledge exchange and innovation?

Question 24: How can we make more use of virtual demonstrations for disseminating knowledge and innovation?

Question 25: How can we make better use of social media for knowledge exchange and innovation?

Question 26: Any other ideas/suggestions?

Question 27: How can we encourage greater and better use of benchmarking?

Theme 6: AKIS capacity building

Question 28: Should there be additional networking events across the AKIS? If so, what kind of events, and where and when should they be held?

Question 29: Are there any current examples of networking events that you have found particularly helpful?

Question 30: How best could accredited training for facilitation be taken forward?

Question 31: Should the option for training in facilitation be extended to all advisors in Scotland or only specific ones such as those accredited under the Farm Business Adviser Accreditation Scheme for Scotland [FBAASS](#)?

Question 32: How do we bridge the gap between applied research and advice in agriculture?

Question 33: What types of activities should be made available in the CPD system?

Question 34: What kinds of support need to be provided to encourage uptake of CPD?

Question 35: Should the FAS have a role in providing some CPD for farmers, crofters and land managers? If yes, what should this role be?

Question 36: How much CPD should farmers, crofters and land managers undertake in a year? (hours / days) Please give a reason for your answer.