ICOS Submission
Bioeconomy Action Plan Consultation

Submitted to the Department of the Environment, Climate and Communications

January 2023

Introduction

The Irish Co-operative Organisation Society (ICOS) is the national umbrella body for co-operatives, founded in 1894. Since then, it has provided governance, direction, vision, support and advice to co-operatives around Ireland from the start-up phase through to long-established co-operatives which have developed over the years. These co-operatives have developed in many sectors and range in scale from small local organisations to large export-driven entities with a multi-national presence. All co-operatives share the commonality of delivering benefit which is centred around the needs of their owner-members.

The co-operative sector has been instrumental in developing the rural economy and agri-food sector in particular. It has provided a successful template and structure for new and potential co-operatives to follow. This open, voluntary and democratic structure can again be deployed to assist with the implementation of actions to support and develop the bioeconomy in Ireland. Along with structure, it can bring scale and unity of purpose to bioeconomy projects, empowering members and their communities to deliver a host of benefits to all stakeholders.

ICOS is happy to discuss this submission or related matters with the Department at any time. We have responded to the consultation document through the questions provided therein, the responses to which are set out below.

Question 1: Are you satisfied the outlined pillars represent the structure of the Irish Bioeconomy?

In general terms, ICOS is satisfied with the outlined pillars with the following comments:

- R & I tends to be process and technology-driven, there seems to be less emphasis on implementation strategy, business models, new and innovative finance and governance models. Both the R, D & I and Governance pillars should focus on this, as well as other pillars.
- Strategy should ideally observe a cross-cutting approach across all pillars and a coherent communications strategy aimed at informing and engaging industry and stakeholders (including community) to demonstrate the relevance of the Bioeconomy and also to dispel misinformation. This will assist in expediting implementation by encouraging more industry stakeholders to engage earlier and to avoid unnecessary and ill-informed objections.
- Knowledge and Skills – more emphasis on practical on-the-job skills is required, especially for those working in emerging industries such as biorefineries and anaerobic digestion plants.
- Nature, Climate and Circular Pillar – there is a need for more coherent policy, in particular around ABP and 'end of waste' legislation to ensure a more circular approach to waste management whilst solving other problems such as the replacement of fossil-based fertilisers.

Question 2: Are there specific key performance indicators and/or targets the bioeconomy should be setting out to achieve to measure its implementation?

- The main performance indicators will undoubtedly be environmental (where measurable) such as CO2e displaced/avoided, biodiversity improvement and water quality improvement. Economic activity both in domestic turnover and in import/export value and employment created will also be vital in measuring success. There may also be an opportunity to express the replacement of fossil -derived products by quantity (e.g., litres, tonnage, kwh of energy etc.). Measuring environmental performance is important not only to demonstrate

improvement but also to compete internationally, however any measurements should be credible and should not be administratively onerous.

Question 3: What other key issues should the Governance Pillar deal with?

- Progress reporting on implementation will be an essential part of the continued governance of bioeconomy actions, reporting on progress compared to targets and also relating to objectives which will no doubt change over time. Implementation measures should ensure that the latest scientific advice is taken into account.
- The interface with industry should be kept under review for currency, relevance and transparency, whilst co-operatives are strongly placed in this regard, other structures may not be.

Question 4: What key issues should the Research, Development and Innovation Pillar deal with?

- The Research, Development and Innovation Pillar should be consistently engaging with all stakeholder and actors. Academic silos should be broken down through feedback loops incorporating academia, industry, Government and community. It is vital that we ensure what is technically feasible is translated into something which is economically viable. Research which is duplicated or has no apparent transformative utility other than being 'new to the world' is a waste of resources.

Question 5: How could the RD&I bioeconomy approach be best structured to support the enhancement, application and scaling up of biological knowledge and bioeconomy solutions?

- There is a clear need for more bottom-up involvement, not just incorporating industry but specifically producers at the start of the supply chain and the communities who should benefit from research. Co-operatives are an invaluable structure to bring actors together across supply chains and should be incorporated into research design in the bioeconomy. Research should adopt challenge-based approaches to solve issues associated with a just transition, and with meeting climate targets whilst ensuring economic viability. Currently academic institutes have the easiest access to and most control over research funding. A dedicated fund which industry should have more influence of in solving real-world current and expected challenges may be more impactful. Clustering is also a useful means to adapt research to local needs and incorporating producer and community views.
- ICOS has announced the rollout of its bioeconomy and sustainability framework and knowledge hub and is looking forward to working with DECC and DAFM on its further development in the coming years. This has the potential to become a vital link between research, policy, industry, producers and communities by disseminating knowledge in an accessible manner.

Question 6: What key issues should the Nature, Climate & Circular Pillar deal with?

- End of waste and Animal Byproduct legislation are significant blockages to the development of a truly circular bioeconomy in a number of sectors. This legislation needs to be continually reviewed and updated to reflect technological progress and to ensure that the maximum cascading value is extracted from all biological resources whilst adhering to the 'do no significant harm' principle.
- There are significant challenges which could present opportunities for the bioeconomy. For instance the achievement of the target to increase organic farming area from 2% to 7% will be difficult with production standards which have not undergone significant review for many

years. These standards should be reviewed for policy coherence, and under the lens of modern practices, technology and scientific progression, especially with reference to the bioeconomy and opportunities for biorefining. Nature restoration and afforestation targets also present both challenge and opportunity, the latter could be unlocked with innovative thinking with the bioeconomy in mind. For example, riparian zones or re-wetted land which could produce biomass without impacting on biodiversity.

Question 7: What key issues concerning consumption patterns need to be examined to close the gap between sustainable supply of biological resources and demand?

- Waste reduction and elimination in the food supply chain will be primary aims in this regard and more accurately matching supply and demand of perishable goods at a local and long supply chain level will go some way in doing this through technological means.
- Consumption at industrial level can be addressed by feedstock and 'waste' mapping, more collaboration across and between sectors will be required to do this, and also mapping out potential value chains to further cascade value from what were once considered spent resources. The co-operative sector has much to offer in terms of co-ordination and implementation of these initiatives.

Question 8: What key issues should the Agriculture, Food and Marine Pillar Deal with?

- The food first principle should be foremost in the rollout of bioeconomy initiatives and in helping to reduce the risk of unintended negative consequences on food security.
- Producer and processor involvement is essential. ICOS engages with a broad membership from dairy co-ops to livestock marts and a range of smaller rural cooperatives who will have significant impact on and will be similarly impacted by the bioeconomy. ICOS has engaged with producers already through research on producer intentions and attitudes on the bioeconomy and has recently held a workshop for industry on their suggestions for the development of the bioeconomy. ICOS will work to develop a co-operative working group comprised of two parts – advisory and implementation. ICOS is willing to share the results of its research with DAFM and DECC and to work collaboratively to develop co-operative models across the country to further bioeconomy and broader sustainability targets and objectives.
- A just transition for producers is a priority and support will be necessary to manage risk for those changing their enterprise to more novel production systems. Without support this will not occur.
- Assistance will be required with the establishment of new co-ops and business models and helping to optimize collaboration between existing co-ops through the provision of incentives and support.

Question 9: What key issues should the communities pillar deal with?

- A national structure or guideline approach for projects within various sectors with locally adaptable templates would assist. This should include for community input or involvement.
- Communications are vital, communicating the 'why' is as important important than the 'how' or the 'what'. This is essential if projects and actions are to get the required support at community level.
- Community engagement and involvement – largely involving communications as above but also the provision of appropriate structures and fora.

- Planning guidelines are in need of overhaul as the current system is highly irregular an inconsistent. The unknowable time and expense involved in planning is discouraging investment and project development, and therefore stifling the achievement of climate objectives and targets.
- **Question 10: Are local and regional policies ensuring the consideration of bioeconomy opportunities are in scope, and are coordinated approaches on such services in place at regional assembly and local authority level?**

- County development plans need to be homogenized in this regard whilst recognising regional differences. Officials of local authorities and elected representatives need to be aware of the broader challenges and how these need to be addressed at a local and regional level.
- Planning system overhaul as previously mentioned is overdue and should be maintained under review as research, technologies and policies evolve.

Question 11: What key issues should the Industry and Enterprise Pillar deal with?

- Educating and informing industry of the opportunities, some will be first movers and some will be laggards in moving towards a circular bioeconomy. Effective and accessible education and knowledge transfer will help to expedite the required changes.
- Encouraging synergies and collaboration is important. Acting in organization or industry-level silos does not result in widespread and expedient action.
- De-risking and scaling through demonstrators

Question 12: What lead market initiatives could support entrepreneurship, development, innovation and the commercialisation of bio-based products, processes, information, and services?

- Public awareness will drive demand as will incentivising the purchase of bio-based alternatives. This needs to be incorporated into the education of those engaged in procurement both in industry and in the public sector.

Question 13: Due to the requirement for capital and operational investment what innovations aimed at financing infrastructures and technical and economic evaluation of innovation are necessary to scale up the bioeconomy?

- Capex support is essential due to the risks involved. High levels of capex, emergent and undeveloped markets, novel technologies and processes, the threat of substitutes and new entrants all combine to maximise risk aversion at industry level. Without capex support development will stall and targets will not be met. De-risking the early adopters in proportion to the risk endured, the relative novelty of the project and the capacity of the project to leverage that support investment to demonstrate a technology, process or business model will help the scale-up. Projects that deliver solutions to key challenges and to climate and biodiversity targets should attract higher rates of support.
- Fostering collaboration and 'coopetition' on projects of mutual benefit, ICOS is well placed to assist in bringing together co-operatives who normally compete into mutually beneficial relationships or project clusters.
- Educate, involve and empower communities. Without community buy-in plans will stall.

Question 14: What key issues should the Knowledge & Skills Pillar deal with?

- CPD and conversion course for those with transferable skills. Practical skills will be in as much if not more demand than academic or technical skills as projects enter the implementation phase.

Question 15: Can the regional skills and regional enterprise approaches better support bioeconomy development?

- Localising national and international best practice models will be essential. At present we need to identify and showcase to stakeholders the best practice models from overseas which can be replicated here. As time moves on and more Irish projects are developed then these can serve as demonstrators.
- While it is clear that regions should focus on the resources which are locally abundant and should develop business models that suit the regional/local context, this needs to be backed up with consistent and coherent policy, supports and incentives at national level.

Question 16: An important part of developing the bioeconomy is to determine the most appropriate practices, treatments, technologies, logistics and business models to valorise ecosystem services, primary and secondary biomass resources. What role do advisory systems play in addressing this challenge?

- Advisory in some cases can have a tendency to be very technical and siloed by discipline, e.g. science, engineering, finance, project management, R&I etc. Advisory needs to be centred around the key actions that will result in good projects. This may mean better and less technical dissemination in many cases, knowledge transfer needs to be accessible in every sense and to every stakeholder. The business case needs to be clear for every initiative, so information must be coherent.

Question 17: Are there any further Pillars/Issues which this Action Plan should address?

- The existing Pillars seem to be sufficient at present, though this should be kept under review

Question 18: Indicate what the top five priorities for action in the bioeconomy over the next three years should be?

1. Collaboration and Co-opetition incentives.
2. Development of best practice demonstration sites.
3. R, D, & I should emanate from demonstrators and from a feedback loop into research. Industry and community input is vital.
4. Finance and de-risking initiatives and supports.
5. Education – particularly focusing on community and on practical skills.