



**Bioeconomy Action Plan 2023-2025**

**Consultation and Discussion Document**

**Southern Regional Assembly submission**

Southern Regional Assembly

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Rialtas na hÉireann  
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## About the Southern Regional Assembly

Based in Waterford city, the Southern Regional Assembly is the regional tier of government in Ireland with a remit for the Southern Region. The Southern Region covers the local authorities of Kilkenny, Carlow, Waterford, Wexford, Tipperary, Cork City, Cork County, Kerry, Clare and Limerick with a total land area of 29,589.8 sq.km or 42% of the state's landmass. The Southern Regional Assembly has 33 members representing the ten local authorities at regional level, 27 appointed by their local authority and six as Committee of the Regions Members.

The Assembly forges links between EU, national and local levels through regional spatial and economic planning and European Regional Development Funding (ERDF) for the benefit of the Southern Region. It is responsible for strategic regional spatial and economic planning and supporting balanced, sustainable regional development by:

- Leading the implementation of the [Regional Spatial & Economic Strategy \(RSES\)](#)
- Promoting balanced regional development through the management of, support for and involvement in European Regional Development Funded programmes and projects.
- Linking local, regional, national and EU policy goals through regional planning and EU regional development

The RSES seeks to achieve balanced regional development and full implementation of Project Ireland 2040 – the National Planning Framework. It will be implemented in partnership with local authorities and state agencies to deliver on this vision and build a cohesive and sustainable region.

The RSES sets out a vision for the Southern Region to:

- Nurture all our places to realise their full potential
- Protect, and enhance our environment
- Successfully combat climate change
- Achieve economic prosperity and improved quality of life for all our citizens
- Accommodate expanded growth and development in suitable locations
- Make the Southern Region one of Europe's most creative, innovative, greenest and liveable regions

The Southern Regional Assembly is the Managing Authority for the Southern, Eastern and Midland Regional Programme 2021-2027, an ERDF co-funded investment programme that supports balanced regional development across two of the three NUTS2 regions of Ireland, the Southern Region and the Eastern and Midland Region. This €663 million co-funded programme of investment is supported by €265 million of EU funding and €398 million of national funding provided by the Government of Ireland. In 2022, the Assembly audited EU funding claims worth over €10 million to Irish organisations that are participating in EU projects which support new and next-stage research, small business supports, and bring expertise and knowledge from other EU regions to inform public policy development.

## Southern Regional Assembly submission

### Question 1: Are you satisfied the outlined Pillars represent the structure of the Irish bioeconomy?

The Southern Regional Assembly is satisfied with the proposed pillars for the Bioeconomy Action Plan and agree that the central pillar should be Governance.

- There should be recognition of the established regional structures in the Pillars of a Bioeconomy Action Plan, which include statutory responsibilities under the Local Government Act 2014 for regional economic and spatial planning and a broader role in the coordination of effectiveness in local government and public services as the regional tier of Government.
- The Southern Region of Ireland has significant strengths in the circular bioeconomy which if understood and managed correctly present an area of opportunity and growth for the Region as well as providing a pathway to achieving Ireland's climate action targets. Due to extensive natural and infrastructure resources, the Southern Region has huge potential to inform and lead the way in the bioeconomy in Ireland.
- The Southern Regional Assembly and Munster Technological University's Circular Bioeconomy Research Group (CircBio) are currently working on the EU Horizon Europe funded ROBIN Project (see Appendix). The [ROBIN project](#) aims to help EU regions, including the Southern Region of Ireland, meet their bioeconomy goals by analysing policies, reviewing good practices, and developing strategies as well as supporting RSES implementation.
- A Bioeconomy Action Plan should recognise and support the growth, potential and work in the bioeconomy in the Southern Region.

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

When addressing KPI's and targets for the implementation of the bioeconomy we would suggest referring to the [Regional Spatial & Economic Strategy \(RSES\)](#) for the Southern Region and in particular the Regional Development Monitor (RDM) Hub (<https://rdm.geohive.ie/>) so that indicators can be aligned to ensure data is being collated at a regional level (NUTS 2). The RSES provides a long-term, strategic development framework for the future physical, economic, and social development of the Southern Region. A two-year Monitoring Report on RSES implementation for the period 2020-2022 is available on the Southern Regional Assembly [website](#). The RSES has a number of Regional Policy Objectives (RPO's) and visions which relate to the bioeconomy and its implementation:

- Investment in research relating to the circular bioeconomy in the Southern Region
- Jobs created in SMEs relating to products or services in the circular bioeconomy in the Southern Region
- **RPO 56-** Local authorities including objectives in statutory land use plans promoting energy conservation, energy efficiency and the use of renewable energy sources
- **RPO 60-**Development of social enterprises and the circular economy within local communities to benefit environmental protection, employment generation and community development.
- **RPO 56-** Transition to a low carbon future and the transition towards low carbon economy and circular economy
- **RPO 58-** Development of the rural economy through supporting a sustainable and economically efficient agricultural and food sector, together with the bioeconomy.
- **RPO 59-** Support the sustainable development of the Lisheen Bioeconomy Hub site into a significant economic and employment driver with the potential to significantly contribute towards meeting Ireland's climate change targets as a strategic site of European significance. Such initiatives as the Lisheen site shall be subject to robust environmental assessment including Flood Risk Assessment (if required) and satisfy AA requirements to avoid adverse effects on the integrity of European Sites.

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

- There is no regional circular bioeconomy strategy in place in the Southern Region, so there is a clear gap for a regional focused strategy that accommodates and is flexible to the bioeconomy needs of the Region.
- Action 363 of the [Climate Action Plan 2021](#) states that support will be given to Regional Assemblies to identify areas of potential growth in the bioeconomy, and we believe this should be echoed in a Bioeconomy Action Plan. In addition, Actions 12.4 of the [Climate Action Plan 2023-2025](#) states that Regional Assemblies will publish and implement Regional Renewable Electricity Strategies, enabling a unified methodology for national and regional spatial and capacity targets, identifying areas suitable for renewable electricity deployment at regional and county level. A Bioeconomy Action Plan should support this strategy development. **In this regard consideration should be given to the development of Regional Bioeconomy Action Plans for each of the three Regions.**
- A Bioeconomy Action Plan should address that regions need financial supports from a national level to grow the bioeconomy. This should include more specific and targeted research calls, financial initiatives for regional stakeholders and more investment in regions technological universities to further develop their bioeconomy activities.
- The Governance Pill is an opportunity for the Bioeconomy Action Plan to align to other strategies, as to not have it working in silo. The Bioeconomy Action Plan should align with for example the RSES (and by default Local Development Plans and Local Economic and Community Plans), and the Southern Regional Assemblies BABEL report on '[A Regional Approach to Smart Specialisation](#)' .
- The Governance Pillar should recognise that local authorities are critical for the implementation of national climate change policy at local level. This pillar should therefore align with and support the [Climate Action Regional Offices \(CAROs\)](#) as they coordinate climate action at regional and local levels and help build on the existing experience across the local authority sector

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

In line with the RSES for the Southern Region, we believe the following key issues should be addressed and supported in the RD&I Pillar:

- The Southern Regional Assembly's [‘Towards a Learning Region’](#) identifies 19 actions which will move the Region towards establishing a Learning Region with a focused on Lifelong Learning and skills development. One of these actions is to ensure more students and workers across all sectors participate in educational courses and skills development that support the transition to a Low Carbon and Circular Economy.
- Development of enterprises that create and employ green technologies
- Investment in research relating to the circular bioeconomy in the Southern Region
- Maximise the potential of digital enterprises and innovation hubs to support digitalisation, business growth, climate action and smart working. Embrace the opportunities of climate action in the marine, circular bioeconomy, tourism and energy sectors.
- The Circular Bioeconomy Research Group (CIRCBIO) based at Shannon ABC in MTU, has a multidisciplinary team working on various bioeconomy educational and research activities in the Region. A Bioeconomy Action Plan should acknowledge and support such groups.
- Investment in research relating to the circular bioeconomy in the Southern Region

#### **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?**

When looking at how the RD&I bioeconomy approach could be best structured, the Southern Regional Assembly would advise identifying good practices already in place both nationally and regionally, and ensuring they are supported and engaged throughout the preparation of a Bioeconomy Action Plan, and that consideration would be given to the preparation of a regional Bioeconomy Action Plans. A number of good practices relating to the bioeconomy regionally and nationally include, but are not limited to:

- **Bioeconomy Ireland Week**- Bioeconomy Ireland Week is week-long calendar of activities aimed at improving knowledge and awareness of the bioeconomy among various

stakeholders in Ireland, from primary producers to consumers and everyone in between.

- **ABC Economy-** ABC Economy supports local authorities and regions with a framework for understanding the potential of the bio-based economies and to identify and assess new value chains and conditions to support their development. The project has also developed an innovation blueprint for regions and local authorities to support their bioeconomy developments.
- **ICT-BIOCHAIN-** ICT-BIOCHAIN funded through the BBI JU, aims to improve the efficiency of biomass supply chains, through integration of digital technologies and modelling within the two model demonstrator regions for sustainable chemical production.
- **Kerry Sustainable Energy Co-Op-** A community-based Co-Op actively promoting and supporting more local ownership of renewable energy, creating benefits for the local community. Aiming substitute reliance on imported and non-renewable energy with locally sourced and owned energy while educating and assisting the wider community on how to reduce energy wastage to fulfil the vision of a 100 % renewable energy Kerry by 2030.
- **Ireland's Knowledge Centre For Carbon, Climate And Community Action (IKC3)-** Funded as part of the Governments Future Jobs Initiative, IKC3 has received funding from the Higher Education Authority (HEA) under the Human Capital Initiative 3 (HCI3) and is designed to deliver investment targeting increased capacity in higher education to meet priority skills needs which includes the Climate Change and Sustainable Living. The ICK3 will deploy diverse model of innovation to education, integrating state of the art pedagogies and learning pathways.
- **Dingle Hub-** To the west of the Southern Region there is a lot of activity being generated from the Bioeconomy Cluster Southwest, they are connecting a lot of biobased companies. Dingle hub is also doing a lot of work with the farming and business community across the Dingle peninsula prompting the benefits of anaerobic digestion (AD) and the variety of inputs and the benefits of its investment. The Dingle peninsula has the benefit of a steady supply of inputs, due to the hospitality industry it has a steady supply of food waste in the summer months and with a large agricultural sector it has a steady supply of slurry (cattle manure) during the winter. This gives the possibility further economic viability to small scale farms in the area.



- **RDI Hub-** A world class centre for design-led, digital innovation located in Kerry. RDI Hub focuses on digitisation, ideation and commercialisation of innovation and research in the Digital, AI, Data and related technologies' sector.
- **Campus Living Labs Sustainability Project-** A two-year partnership project between the Environmental Protection Agency (EPA) and the Irish Universities' Association (IUA). This project will deliver on the EPA's Circular Economy Programme vision to support national-level, strategic programmes to prevent waste and drive the circular economy in Ireland. Having the right regulatory requirements in place to facilitate initiatives such as this should be part of a Bioeconomy Action Plan.
- The Southern Regional Assembly believes that enhancing RD&I capacity in the third level sector and in SMEs throughout the regions in line with Ireland's Smart Specialisation Strategy is critical. Increased investment, including through the ERDF co-funded [Southern, Eastern and Midland Regional Programme 2021–2027](#), have an important role to play.
- In line with the opportunities identified for the bioeconomy in the S3 [report](#) for the Southern Region there should be the promotion of research-industry gateways, regional clusters, and working groups to lead the way in opportunity mapping for the sector, strategy alignment, identification of skills and monetary gaps, implementation of projects with the potential to increase activity, creation of a thriving environment for small and medium scale enterprises and collaboration with international counterparts.

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

- The Southern Regional Assembly consider that biomass should be managed and harvested sustainably and subject to full environmental assessment to ensure protection of the environment. The Region has rich biodiversity including many Natura 2000 sites (EU Habitats Directive) which provide protection for specific species and their habitats under the EU Habitats Directive. Consideration should therefore be given to the protection of these areas in accordance with EU and national legislation and the trade-offs of developing a bioeconomy should be fully considered as a key issue in a Nature, Climate & Circular Pillar.
- Conserving and enhancing our natural resources is important for our future planning, including national water planning, regional wastewater management, river basement and flood risk management. Collaboration between national, regional and local public bodies is crucial to ensuring our water and environmental resources are managed properly for the future, including incorporating a circular economic approach. The protection of water resources from pollution is also a significant issue for consideration with statutory protection under the Water Framework Directive.
- Development of enterprises that create and employ green technologies.
- Local authorities ensuring that the development of green industry and technologies incorporates careful consideration of potential environmental impacts at project level including the capacity of receiving environment and existing infrastructure to serve new industries.
- Replacement of high embedded carbon products with biobased alternative and developing bioprocessing and biorefining to reduce emissions should also be a key issue in this pillar. The RSES will promote the efficient use of bio-based waste resources as part of a broader strategy to develop a Bioenergy Implementation Plan for the Region.

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

The RSES for the Southern Region has a regional policy objective (No. 58) to facilitate the development of the rural economy by supporting a sustainable and economically efficient agricultural and food sector, together with the bioeconomy, subject to required environmental assessment processes where necessary and balanced with the importance of maintaining and protecting the natural landscape. The Southern Regional Assembly believe that a Bioeconomy Action Plan should therefore recognise the work towards accommodating the needs of the country/region when it comes to the bioeconomy and biodiversity with a balance and sustainable approach.

**Question 8: What key issues should the Agriculture, Food & the Marine Pillar deal with?**

- From engaging with regional stakeholders and throughout the RSES consultation process, one issue which has come up is engagement and ensuring that members/stakeholders involved in and impacted by the bioeconomy (e.g. public, consumers, farmers) are fully engaged and consulted when it comes to the development of the bioeconomy.
- The RSES recognises and works towards accommodating the needs of the region when it comes to the bioeconomy with a balanced and sustainable approach, and we believe a Bioeconomy Action Plan should support such regional objectives.
- Often in the case of agri-food industry a key objective is around finding solutions to become more sustainable, and to add value to primary/secondary feedstocks. The bioeconomy offers opportunities to meet these challenges. For primary producers, there is often a priority on ensuring that their farms remain profitable, despite the increasing pressures, including environmental pressures resulting from a 25% GHG reduction target by 2030, as well as economic pressures from increasing input prices. For many companies/industries looking to develop or implement bioeconomy processes, a priority is accessing funding for scale up. This barrier should be addressed in a Bioeconomy Action Plan by supporting industry to be both economically viable and sustainable.
- Through the new provisions of the National Marine Planning Framework 2021 and the Maritime Area Planning Act 2021, provisions are being made for forward planning in the marine area and for competent authorities to prepare Designated Maritime Area Plans.

Plans will potentially be prepared for certain marine sectors and for geographic areas to coordinate and sustainably plan for different uses of the marine area and balance those uses with environmental protection. Harnessing the potential of the marine bioeconomy and forward planning for it will be a key opportunity for the Southern Region's marine and coastal communities. The Southern Regional Assembly will expect to be key stakeholders in any such Designated Maritime Area Plans, so supporting the marine bioeconomy through a Bioeconomy Action Plan will be key opportunity under those processes.

### Question 9: What key issues should the Communities Pillar deal with?

- Feedback that the Southern Regional Assembly have received through engagement with regional stakeholders is that rural communities and farmers should be central to the development of strategies/action plans.
- Innovative rural community initiatives such as Dingle Hub and RDI Hub in the Southern Region demonstrate what is possible in the bioeconomy and are a tangible result for community engagement and should be supported through a Bioeconomy Action Plan.
- The concept of a biorefinery as a positive and sustainable concept needs to be communicated with local communities, local authorities and local elected representatives so they have a very clear understanding of what this principal approach means.

Also, in line with the RSES for the Southern Region, the Southern Regional Assembly believe the below issue to be key to the Communities Pillar of a Bioeconomy Action Plan:

- **RPO 60-** Development of social enterprises and the circular economy within local communities to benefit environmental protection, employment generation and community development.

**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?**

- The Southern Regional Assembly plays a leading role in supporting sustainable regional development including the development of a circular bioeconomy in the Southern Region. The Southern Regional Assembly is responsible for the implementation of the Regional Spatial & Economic Strategy (RSES) for the Southern Region and for supporting balanced and sustainable regional development.
- Through alignment and support of the statutory RSES, a Bioeconomy Action Plan can influence the Local Authority Plans which have to align with the RSES objectives. The RSES recognises the need for a regional articulation of the national strategies in place and as part of the implementation process will be drafting relevant action plans including a Regional Decarbonisation Plan for the Southern Region with a focus on the Bioeconomy.
- In the Climate Action Plan 2023 the three Regional Assemblies are currently working with DECC and the SEAI to develop renewable electricity resources, which will set out targets for onshore renewable electricity in Regional Renewable Electricity Strategies (RRES) for each Region.
- There is not a dedicated regional bioeconomy strategy for the Southern Region. However, alongside the RSES there is a [Southern Region Waste Management Plan 2015-2021](#) (being replaced by the National Waste Management Plan for a Circular Economy which is currently being prepared). The plan puts in place policy objectives and actions which align with European and national waste policy and support Ireland's move to an economy defined by higher resource efficiency and productivity.
- Action 363 of the [Climate Action Plan 2021](#) states that support will be given to Regional Assemblies to identify areas of potential growth in the bioeconomy.
- One of the benefits of the implementation of bioeconomy statements and strategies that relate and reference the bioeconomy for the Southern Region is that the region is already home to a vast amount of biological raw materials and infrastructure resources along with world renowned research institutes in the circular bioeconomy sector. There is a strong collaboration between the industry and academia which fosters cutting edge advancements with the potential for a globally competitive and sustainable bioeconomy.

- The Southern Regional Assembly believe that although there are regional governance models in place which reference the bioeconomy and its opportunities, there is a clear gap for a regional focused approach in action plans that accommodates and is flexible to the bioeconomy needs of the Southern Region.

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

In line with the RSES for the Southern Region, the Southern Regional Assembly believe that the Industry & Enterprise Pillar should deal with the following issues:

- **RPO 60-** Development of enterprises that create and employ green technologies.
- **RPO 59-** The sustainable development of the Lisheen Bioeconomy Hub site into a significant economic and employment driver with the potential to significantly contribute towards meeting Ireland's climate change targets as a strategic site of European significance.

In addition, the [Southern Region Waste Management Plan 2015-2021](#) includes targets which the Southern Regional Assembly believe should be reflected in a Bioeconomy Action Plan:

- Maximise the potential of digital enterprises and innovation hubs to support digitalisation, business growth, climate action and smart working. Embrace the opportunities of climate action in the marine, circular bioeconomy, tourism and energy sectors.
- Liaise with and support Economic Development Departments of local authorities in the identification of enterprises and potential clusters of enterprises for the development of secondary material markets.
- The Southern Regional Assembly regional [report](#) on Smart Specialisation through an extensive SWOT analysis identified the bioeconomy as a key sector for the region with further priority areas identified to direct resources towards. The Southern Regional Assembly will continue to work with the national department in the development of smart specialisation strategies.
- The Industry and Enterprise pillar should factor in regional Smart Specialisation in bioeconomy activity and encourage its growth. The S3 report highlights its huge potential and recommends that transformational roadmaps are identified for such emerging sectors (in a process known as Entrepreneurial Discovery Process or EDP)

- Through the RSES, ROBIN Project, Regional Enterprise Plans and regional approaches to S3, there is huge potential to advance the bioeconomy of the region by supporting such EDP initiatives. This pillar should reference this by supporting regional S3 and creating actions around it for an EDP for the bioeconomy and its different facets.
- The Southern Regional Assemblies report on a Regional Approach for the development of S3 in the Southern Region identified that when it comes to the bioeconomy, there is a need for enhanced seed funding in the built environment, as well as investor networks that are less risk-averse and take a long-term return view. Commercial investment in green solutions should also be incentivised to encourage more investment in sustainable solutions.

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

Feedback through stakeholder engagement has shown that often the capital expenditure, and lack of scale-up facilities along with the long route to market for some processes and products are prohibitive for industry when it comes to engagement with the bioeconomy.

As identified in the Southern Regional Assemblies S3 report, when it comes to the bioeconomy and the Southern Region, subsectors for specialisation which should be supported in a Bioeconomy Action Plan, and which could support entrepreneurial development include:

- Biorefining
- Sustainable lactic acid
- Biodegradable plastics
- Biobased fertilisers
- Biomaterials
- Natural chemicals
- Microalgal biofuels
- Food biotechnology.

**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?**

Often the capital expenditure, and lack of scale-up facilities along with the long route to market for some processes and products are prohibitive for companies. There are several potential tools which could be used to support this activity:

- The potential of biomass from various sectors and understanding how this may be used should be highlighted. Several projects including INFORMBIO, MainstreamBIO, Be-Rural, Power4Bio and ROBIN can help inform this work and approaches for mapping of feedstocks, technologies and business cases for developing the bioeconomy regionally and nationally.
- Peer-learning activities and exchanges of best practices through international and interregional site visits, learning and networking events can also support to build capacity in regions.
- Several opportunities exist to develop identified opportunities, first at lower technology readiness levels (TRL) through established research centres, and later scaling these through pilot and demonstration activities with regional R&D and industry partners.
- In Europe, the Public-Private-Partnership model of the Biobased Industries Joint Undertaking (now CBE JU) has played a key role in supporting bioeconomy scale up. Setting appropriate policy, including measurable targets is also of key importance.
- The important role of clusters in connecting the various value chain stakeholders in the region is already being seen in the Southern Region with the Circular Bioeconomy Cluster South West.
- The S3 report for the Southern Region identified that there is a need to scale up biorefining and bioprocessing in the region to bring about significant economic impacts. Regulations should also be put in place to manage competing land uses and optimise “end-of-life waste”.



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

The S3 report for the Southern Region identified the below key challenges in relation to knowledge and skills in the bioeconomy in the region:

- More youth engagement should be done to attract and retain young talents in the region. Lifestyle gaps across the region should also be bridged to encourage the retention of a qualified workforce.
- Education centred around sustainable living and circular economy should be introduced to kids in pre-school, primary, and secondary levels.

There is a willingness to learn in the region that creates a good atmosphere for cross-sectorial partnership towards sustainable development. The Southern Region is moving towards becoming a UNESCO Learning Region. The Southern Regional Assembly's '[Towards a Learning Region](#)' identifies 19 actions which will move the region towards establishing a Learning Region. One of these actions is to ensure more students and workers across all sectors participate in educational courses and skills development that support the transition to a Low Carbon and Circular Economy.

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

The Southern Region is already home to a vast amount of biological raw materials and infrastructure resources along with world renowned research institutes in the circular bioeconomy sector. There is a strong collaboration between the industry and academia which fosters cutting edge advancements with the potential for a globally competitive and sustainable bioeconomy and this collaboration needs to be supported in a Bioeconomy Action Plan.

- The Regional Skills Fora (established on a sub-regional basis) play an important role in identifying and supporting skills development and their work with industry, HEIS and the FE sector is an important support for regional skills development and enterprise in the bioeconomy.
- The National Bioeconomy Campus at Lisheen, Tipperary was developed through the Irish Bioeconomy Foundation (IBF) bringing together relevant stakeholders, including local

government, universities, private enterprise and is supported through Enterprise Ireland. At this campus IBF supports collaboration between food companies and other organisations to identifying sustainable bio-based opportunities by deploying biorefining technologies based on renewable biological resources. This campus enables actors across industry, entrepreneurship, agriculture, and research to scale technologies that convert Ireland's natural resources to products of high value for use in a wide variety of sectors including food ingredients, feed ingredients, pharmaceuticals, natural chemicals, biodegradable plastics and more.

- Many bio-based industries are regionally based, and a developed bioeconomy will help reduce regional decline. Involving regional assemblies in the policy making process will help further the effectiveness of development of the bioeconomy.

**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?**

The [ROBIN project](#), which the Southern Regional Assembly is currently a partner on, explores existing bioeconomy governance models in Europe, develops a typology of these models and identifies good governance practices. Through consultation with and active engagement of quadruple helix stakeholders in the Southern Region, understanding of the barriers, challenges, and opportunities for the uptake of circular bioeconomy governance models is being more deeply understood.

The ROBIN Advisory Board acts as a consultation and validation body for the ROBIN project, providing strategic guidance and expertise on ad-hoc basis, and according to specific project milestones and needs. The AB offer valuable feedback to the project's consortium aimed at aligning the ROBIN outcomes with the needs of the project's stakeholders. The ROBIN AB members provide their expertise on the needs and challenges that the ROBIN stakeholder groups are currently facing with the bioeconomy as well as offering meaningful feedback on the project's ideas, pilot actions and activities' outcomes.

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

- The Southern Regional Assembly believe that a key pillar/issue which should be addressed in a Bioeconomy Action Plan is support of Regional Assemblies to identify areas of potential growth in the bioeconomy.
- S3. Completing the Entrepreneurial Discovery Process (EDP) was beyond the scope of the Regional Approach for the development of S3 in the Southern Region report but explanations for important future steps in the EDP of the Smart Specialisation Strategy are included. In addition to the EDP, these include a guide towards useful S3 policy instruments and the immediate next steps that the Southern Region should undertake in monitoring and evaluation mechanisms. The report identifies the biobased economy as being a key area of technological specialisation. A more effective EDP would facilitate the Smart Southern Region ambitions to success.

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

- Engagement with bioeconomy stakeholders across government, academia, community and industry. The manufacturing and commercial sectors have potential to be more renewable and manage themselves more sustainably.
- Support Regional Assemblies to identify areas of potential growth in the bioeconomy in their regions alongside the RSES for the Southern Region. The RSES aims to protect and enhance the environment, and the bioeconomy is identified as a sector offering significant development opportunities and a key instrument in the transition to a low carbon economy and also assisting in halting rural decline. Action 363 of the [Climate Action Plan 2021](#) states that support will be given to Regional Assemblies to identify areas of potential growth in the bioeconomy and we believe this should be echoed in a Bioeconomy Action Plan. In this regard **consideration should be given the development of Regional Bioeconomy Action Plans/Strategies for each of the three Regions**. In addition, Actions 12.4 of the [Climate Action Plan 2023-2025](#) states that Regional Assemblies will publish and implement Regional Renewable Electricity Strategies, enabling a unified methodology for national and regional spatial and capacity targets, identifying areas suitable for renewable electricity deployment

at regional and county level and a Bioeconomy Action Plan should support this strategy development. Through the RSES and RPO's, ROBIN Project, Regional Enterprise Plans and regional approaches to S3, there is huge potential to advance the bioeconomy of the region by supporting such EDP initiatives.

- Support infrastructure and investment for scale-up in the bioeconomy. Feedback from stakeholder has shown that often the capital expenditure, and lack of scale-up facilities along with the long route to market for some processes and products can prove prohibitive for industry when it comes to engagement with the bioeconomy.
- Support and recognise the important role of regional bioeconomy clusters such as Circular Bioeconomy Cluster South West in connecting the various value chain bioeconomy stakeholders regionally.
- Actions should drive Climate Action goals, alignment with key Climate Actions identified in CAP 21 & 23

## Appendix

### ROBIN Project

The Horizon Europe funded ROBIN project aims to empower Europe's regions to adapt their governance models and structures in ways that accelerate the achievement of their circular bioeconomy targets while promoting social innovation and accounting for different regional contexts.

The Southern Regional Assembly and Munster Technological University's Circular Bioeconomy Research Group (CircBio) have joined forces as the Irish partners for the Southern Region on ROBIN

Running from September 2022 until 2025, ROBIN will allow us to learn from and share knowledge with other European regions and partners, including Greece, Spain, Germany and Slovakia, about their bioeconomy regional structures and strategies.

### How will ROBIN support regions?

ROBIN will support 5 regions across Europe to:

- **Adapt** their governance models to support the scaling up of bio-based value chains of their ecosystem.
- **Exploit** existing knowledge from earlier work and knowhow in bioeconomy policy and social innovation.
- **Network** and source knowledge from peers and consort with the European Commission's Circular Cities and Regions Initiative's Coordination and Support Office (CCRI-CSO)

### How will ROBIN achieve this?

5 steps to innovative circular bioeconomy governance structures and models in the ROBIN regions:

**Step 1** Set the scene on regional bioeconomy governance models

**Step 2** Co-create regional governance models and structures

**Step 3** Set up and validate the ROBIN toolbox

**Step 4** Monitor and evaluate results- share best practices

**Step 5** Communicate and deploy synergies

### Multi-Actor Regional Constellations (MARC)s

ROBIN partners will identify and establish regional stakeholder representatives to make up the Multi Actor Regional Constellations (MARC)s for the project.

MARC)s will provide their expertise on the needs and challenges that the ROBIN regions are currently facing as well as provide meaningful feedback on the project's ideas, pilot actions and activity outcomes.

### Project contact:

[Redacted contact information]

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