

Cover Letter



Dublin, IRE

I would be able to participate in a public session at a committee meeting.

I prefer that my name and other personal details not be published.

I am a current third-year student at DCU studying Mechanical and Sustainability Engineering. As a student studying Sustainability engineering, I wanted to answer the questions listed in the Bioeconomy Action Plan and make useful recommendations to contribute to the development of the bioeconomy in Ireland.

1. Are you satisfied the outlined Pillars represent the structure of the Irish bioeconomy?
 - 1.1. Yes as they outline the pillars most relevant to Ireland as the outlined pillars cover a wide range of areas.
2. Are there specific key performance indicators and/or targets the bioeconomy should be setting out to achieve to measure its implementation?
 - 2.1. Making sure the policymaking decisions are made with scientific expertise will provide the best advice to make sure the government meets the bioeconomy targets.
3. What other key issues should the Governance Pillar deal with?
 - 3.1. Rising public awareness of the importance of the bioeconomy and how the improvement of the bioeconomy with positively impact individuals.
4. What key issues should the Research, Development & Innovation Pillar deal with?
 - 4.1. Insuring that the possibility to research in-depth, and make the applications easier by making funding more accessible.
5. How could RD&I bioeconomy approach be best structured to support the enhancement, application and scaling-up of biological knowledge and bioeconomy solutions?
 - 5.1. Make sure to have different teams focusing on specific research topics in order to get an in-depth understanding of the topic of research. Have regular meetings to make sure the team is researching quality information efficiently and making sure the team is on the right path.
6. What key issues should the Nature, Climate & Circular Pillar deal with?
 - 6.1. Making sure nature is not destroyed and restoring areas where it has been damaged. Come up with ways to deaccelerate climate change and come up with methods to tackle the effects of climate change. Circular bioeconomy should be one of the key issues to reduce the amount of waste and emissions.
7. What key issues concerning consumption patterns need to be examined to close the gap between sustainable supply of biological resources and demand?
 - 7.1. Making sure to not excessively supply the biological resources and try and supply just enough for the demand so the resources are not wasted as this will cause extra emissions to the environment. When wastes are created, how to recycle, or reuse them and how to safely dispose of them with minimal emissions.
8. What key issues should the Agriculture, Food & the Marine Pillar deal with?
 - 8.1. Efficient agriculture methods and new technologies help reduce the emissions caused by agriculture as it accounts for a large percentage of the total emissions caused in Ireland.
9. What key issues should the Communities Pillar deal with?
 - 9.1. Good communication between different bodies of people (e.g. universities, public, industry) to ensure the development of bioeconomy to all sectors, rather than only specific ones to secure the bioeconomy positively impacts a wider community.
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?
 - 10.1. There should be further development of regional policies to match the new technologies that will be created in the future. Local politicians should keep an

eye on the new technologies and create policies to ensure the right technologies are used to help the community.

11. What key issues should the Industry & Enterprise Pillar deal with?
 - 11.1. Supporting enterprises which are willing to take the risk of working in this market which is not developed by helping in different ways including financial and research support.
12. What lead market initiatives could support entrepreneurship, development, innovation and the commercialisation of bio-based products, processes, information, and services?
 - 12.1. A campaign to raise awareness of the significance and importance of bioeconomy to individuals in the community and existing and new technologies will help better the bioeconomy in Ireland.
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?
 - 13.1. Clear research showing why further development of bioeconomy is needed and examples of technologies we could potentially use to improve this.
14. What key issues should the Knowledge & Skills Pillar deal with?
 - 14.1. Hiring professionals with the required knowledge and skills to do the research. Training and upskilling people to assist and manage the research. This should include professionals in the field and students with different education levels to make ensure further development of bioeconomy in the future.
15. Can the regional skills and regional enterprise approaches better support bioeconomy development?
 - 15.1. Yes, especially when developing applications for regional bioeconomy, but also for the bigger communities as this brings in a different perspective and brings new ideas.
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?
 - 16.1. They play an important role as they lead people in what types of approaches should be taken and if they give inappropriate advice, the development of the bioeconomy can slow down rather than accelerate.
17. Are there any further Pillars/Issues which this Action Plan should address?
 - 17.1. I do not think there are other issues the Action Plan should address but I think it would be beneficial to focus more on the sectors where the emissions are the biggest to tackle the bigger issues first.
18. Indicate what the top five priorities for action in the bioeconomy over the next three years should be?
 - 18.1. Prioritising issues that cause the most emissions (e.g. agriculture) to slow down climate change at a faster rate.
 - 18.2. Developing policies quickly to allow the industry to act on the policies to further develop the bioeconomy.
 - 18.3. Giving appropriate advice to set a good fundamental for the further development of bioeconomy in Ireland.

- 18.4. Increasing the awareness of bioeconomy and why it is significant and beneficial for Ireland and for individuals living in the country to gain community support.
- 18.5. The agriculture industry should be tackled first as this industry is responsible for a majority of the emissions caused in Ireland, including issues such as food waste, amount of use of non-renewable energy, and low efficiency in the overall production of goods.