

MM324 Bioeconomy Action Plan Response

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

Yes, I believe that all aspects of Bioeconomy is covered by the Pillars.

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

I believe that one of the important indicators that should be set out are carbon neutrality, with the aim of future capturing more carbon than we emit. Another would be safe and sustainable farming, where food production can be greater than the demand and Ireland could theoretically be self-sustained. Likewise with energy production, I'd like to see Ireland become self-sufficient and be able to run on solely renewable resources, while exporting excess to make money. I think another very important indicator would be to have no habitat loss, more areas of natural beauty where many species can live harmoniously.

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

I think one of the main aspects of the governance Pillar should be communication, whether that be to the public through consultations like this one, or with stakeholders to ensure fairness across the board and ensure everyone is on the same page. It should also be responsible for information gathering. Data is extremely important for analysing and making informed decisions, where it is measured is even more important. I would like to see the correct decisions being made on behalf of the country with the correct information available.

4. What key issues should the Research, Development & Innovation Pillar deal with?

Funding is one of the biggest challenges when it comes to research development and innovation. More access to Irish and EU grants would help to take advantage of Ireland's highly skilled third-level cohort. Running competitions may peak more people's interest and may cause people with

capacity for brilliant problem solving skills to get involved. Improvements to technology used in research would also have a big impact.

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?

Having most third level courses do a module of bioeconomy and how their subject choice relates to/ affects our bioeconomy would be important. This would drive more awareness from an earlier stage of peoples careers which may lead to inspiration and ideas in areas you would not necessarily expect them. Re-education of people who are in the workforce may also go a long way in improving our understanding of the bioeconomy.

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

It is important that we “operate within our ecological boundaries”, but what are our ecological boundaries. I think defining this, relative to how much fresh water we have, to forestable timber, to wind energy available is important. Knowing what we are capable of producing, and how much use is overuse is very important. There are only a certain number of natural resources available to us on this island and they should be divided fairly, whilst also respecting the natural resources. Waste production should also be considered with an aim to have a circular economy in any area where it can be implemented. I think this sector should look after the trade-off between nature and our needs. For example, if we have a site which has the potential to produce enough wind to supply 50% of our energy production which may affect animal life vs the amount of carbon produced be a finite resource being used. I do not have the answers to this but i believe this pillar should contain framework to tackle these decisions.

7. What key issues concerning consumption patterns need to be examined to close the gap between sustainable supply of biologicalresources and demand?

I think a major concern is technological waste. I believe that it is not spoken about enough in ireland but this capitalist idea of having to upgrade your phone or laptop every year is destructive. There should be more incentives to

repair rather than waste. A lot of our technological waste gets shipped off to other countries to deal with. Aside to this, i think food waste is a massive problem. More information should be there to encourage at home composting, and to grow your own produce. I think people turning driveways/ big patches of grass into either productive plants or wildflowers to encourage bees/ pollinators.

8. What key issues should the Agriculture, Food & the Marine Pillar deal with?

There should be some investing into hydroponic farming, i see this as a way to have more control over crop production and have high yields. This can be increased vertically leaving more land for other purposes. I believe improving of technology in rural areas would help too as a lot of people are reliant on cheaper equipment producing more harmful gas. Ireland is also blessed with great access to marine life, overfishing may becoming a problem and allowing the eu too much access to our waters may prove detrimental to our waters.

9. What key issues should the Communities Pillar deal with?

It should have incentives for towns and communities to get together to look after their areas. Things like tidy towns are a great way to have people working together. More urban garden areas can give people access to composting food production. Getting kids involved in learning about the local ecosystems is a great way for them to have a respect for their locality from a young age. An easy route for communication for if members have a query or an idea would be great. Maybe even allow people to plant trees in areas as the sense of pride watching that tree grow up is immeasurable.

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?

Im not too sure what this question is asking. I do not think this is relevant to me.

11. What key issues should the Industry & Enterprise Pillar deal with?

In relation to the issues stated in the document, an issue that should fall under the enterprise section should relate to buzzwords used around new business that are essentially greenwashing. Maybe some regulatory body which could give out stamps of approval, like the Bord Bia approved stamp you see on food, which could back the information that a product or service uses renewable energy to power it, or has a waste program. This mark could be used as a trustworthy way to ensure you're fighting the good fight when you're buying products. Also incentives for new businesses to use these sustainable methods of practice should be encouraged. More information about methods of practice are good as any company can slap a green eco sign on the front and the majority of the population would prefer it to another with nothing to substantiate that claim.

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

Maybe a program to encourage recycling like what they have in Germany, where you hold onto your old cans, plastics or glass bottles and exchange them for a small rebate. This could encourage recycling amongst everyone and encourage companies to make packaging from recycled materials.

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?

Government and EU grants are always beneficial for increasing finances. Maybe special rate loans could be obtained by companies who commit to being run sustainably and hitting targets in areas such as waste or carbon capture.

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

As i mentioned before, having most courses have a module on bioeconomy to understand their interaction with it and the part hey play in improving it. I think maybe an introduction to the topic in secondary level so that all students have some sort of awareness of the topic and their responsibilities. Courses for adults and members of the workforce to attend to increase knowledge relative to a company or community.

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

Education in these areas is very important in the workplace so places like Fogra can include them in their teachings to improve the workforce. The digiEco seems like a good program to improve skills in the energy and digital sectors.

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 boards have the responsibility of communicating to all parties and finding the best solution which will positively impact the bioeconomy. They are the ones who must gather information, analyse it and make informed decisions on behalf of the people.

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

I think adding commercial activity to the Industry and Enterprise Pillar would be beneficial. It would be responsible for the language associated with eco-friendly products and encourage transparency with processes to inform the public how things are actually made.

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

My top five priorities in no specific order would be:

Carbon Capture. With the earth heating more rapidly than initially expected, i think it is highly important to excel in the EU's goal of being carbon neutral by 2050 and work to reach this point sooner with the aims of emitting less carbon than we capture.

Sustainable food production. With the population growing every year, i think it is greatly important to produce high amount of quality food while not using harmful chemicals that release into environments polluting them. Habitats should remain protected so i see an opportunity of hydroponics to excel in this area.

Energy production. We should aim to use 100% renewable energy to the point where we can export this for profit. A massive chunk of carbon would be reduced by making this switch to renewable. I think ireland has the capability of doing this.

Waste generation. I think waste generation is a huge issue and implementing a circular economy would help to reduce this. Food waste should be discouraged and composting education increased. Tech waste should aim to be re-used rather than wasted.

Communication. I think communication is hugely important in making the correct decisions. Communication between the public, the government and stakeholders should be implemented. And not just listening to whats being said, but acting on the public opinion for a better country for all.