

# Bioeconomy Action Plan:

## Public Consultation

**Question 1.** Are you satisfied the outlined Pillars represent the structure of the Irish bioeconomy?

I am satisfied that these Pillars outline the Irish economy. The Governance pillar is the most vital as it plays an important role in spreading awareness of the Irish bioeconomy to society. Each pillar has significance in raising crucial information about the Irish bioeconomy and how we can live a sustainable future.

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

The Government should have performance indicators or goals set for specific areas in the bioeconomy if they want to lead globally in this sector. One area where Ireland excels at is agriculture. It is also responsible for the largest greenhouse gas emissions in Ireland. This is an area where targets need to be set. Methane is the most abundant in the agriculture sector. A target should be set to reduce the emissions of methane by 5/10% each year and this can be achieved through seaweed (*Asparagopsis taxiformis*). Farms in Australia are feeding this type of seaweed to cattle, and it is reducing their methane production by 80%. Bill Gates has invested 12 million in an Australian start-up company Rumin8 where they are developing this type of seaweed. I think Ireland should invest their time into this because it will be a crucial way to reduce our national greenhouse emissions by an significant amount.

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

I think the Governance Pillar should deal with all issues related to the Irish economy. They are the voice for the Irish community, and they allow everyone's concerns to be heard. I think the issues mentioned in the Action Plan clearly illustrate what concerns the Governance Pillar should deal with.

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

One key issue that should be brought to light is our methane emissions from our agricultural sector. As I mentioned earlier, *Asparagopsis taxiformis* is the solution. I think this would be a

perfect project for this department and it would certainly benefit our bioeconomy. Another key issue that needs more attention is our lack of utilisation from left over organic matter and bio-charcoal is the solution. It is made from the heating of organic matter in the absence of oxygen. It has many benefits. It can be added to soil and it improves their water and nutrient retention, decreases the acidity of the soil and it takes centuries for it to decompose so it would be a great way to sequester carbon in the soil. Bio-charcoal would be a great project for this department.

**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?

The best approach in my opinion to enhance and scale up our biological knowledge is to branch out and set up research centres in different countries. The best way to broaden our knowledge on our bioeconomy is to learn from others and see how they are approaching their problems. Bill Gates is a great example. His goal has been to decarbonise the global economy and he has been researching around the world for solutions. His most recent investment in Rumin8 in Australia proves my point that we can learn and develop our understanding of our bioeconomy in different parts of the world.

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

The decarbonisation and reducing the emissions of greenhouse gases in the country is the most important for this pillar to achieve for obvious reasons. The two biggest emitters are from our agriculture sector and from the burning of fossil fuels – mostly from driving cars and our homes. I provided a solution for the agriculture sector already and the improvisation of electric cars is a great way to reduce our carbon footprint. But I think there should be a ban on petrol/diesel run cars by 2050 or even. The energy provided to our homes, the pillar should encourage the public to start investing in renewable sources of energy such as solar or potentially wind if suitable. This way people get a cheaper rate of electricity and are benefiting from our bioeconomy.

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

Unfortunately, my knowledge of this subject is not substantial and I feel like I don't have the level of expertise to answer this question.

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

This department could also deal with the excessive methane production problem in cattle. Bio-charcoal could help sequester carbon in the soil improving its capabilities too. Biomass can help “climate neutrality” as it says in the Bioeconomy Action Plan.

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

This Pillar should focus on certain areas around the country and see how they are utilising their own bioeconomy to their advantage. They should go to colleges, schools and estates and examine their way of life and see if they could improve their way of living through their own bioeconomy.

**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?

Unfortunately, my knowledge of this subject is not substantial, and I feel like I don't have the level of expertise to answer this question.

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

I think this Pillar should encourage big corporate companies in Ireland that rely on fossil fuels to transform the way their industry uses energy and where they get it from. They should try and focus on both renewable energy and sustainable biological resources.

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

I think advertisement of the benefits of the bioeconomy could support this hugely. If society knew what the bioeconomy can offer, there would be a lot more investment into the development and usage of the Irish bioeconomy.

**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?

Unfortunately, my knowledge of this subject is not substantial, and I feel like I don't have the level of expertise to answer this question.

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

I agree with what was said in the Action Plan, educating and training new workforce is essential for enhancing our knowledge and skills about our bioeconomy. This Pillar should focus on implementing new courses into colleges that specialise in the utilisation of our bioeconomy. People qualifying from degrees such as these could really benefit the economy and our way of life.

**Question 15.** Can the regional skills and regional enterprise approach better support bioeconomy development?

Unfortunately, my knowledge of this subject is not substantial, and I feel like I don't have the level of expertise to answer this question.

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

Advisory systems play a key role in consulting decisions based on the subject in hand. They are convenient when making decisions in unstructured situations and this would suit this circumstance.

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

I think the Action Plan has listed all the Pillars that can address all the different aspects that can benefit the Irish economy.

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

1. The reduction in greenhouse gas emissions especially in the agricultural sector. The methane production can be reduced by 80% from the digestion *Asparagopsis taxiformis*.
2. The production of bioenergy from biomass and other bio-products should increase. Bio-charcoal is an example.
3. Increase our sources of renewable energy throughout the country such as wind turbines and solar panels.
4. Invest more into medical research in our biomes. This could lead to vaccines to diseases that we haven't cured.

5. The decarbonisation of our economy. The use of renewable energy and not the burning of fossil fuels. Over the next three years the nation should reduce its carbon emissions by at least 10-15%.