Bioeconomy Action Plan Submission

[redacted]

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Thank you for this opportunity to make a submission to this Bioeconomy Action Plan.

Annex 1 Questions

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

I would propose a different way to address these Pillars:
Governance – fine
Knowledge, Training, Skills, Research all together
Innovation, Enterprise and Foresight
Nature – Habitats, Biodiversity & Integrity
Climate
Soil Biome
Agriculture and Food
Trees
Air
Marine and Freshwater
Legal Pillar for protecting Irish Intellectual Property, our Irish Species, Habitats, Water, Air, Soil; For enforcing Irish Law on those who break the law by abusing or unsustainably managing our Bioeconomy “resources”; To maintain Irish ownership of all Irish biodiversity genetic resources; To help with foresight to protect the People of Ireland and our biodiversity in light of new legal and economic threats to our biological sovereignty; To transpose and ratify laws in a way that best protects our other Irish species and the integrity of our habitats, air, water and soil.

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

Meeting our Environmental Targets by monitoring all change and insisting on net zero for Carbon in a holistic way as well as Nitrogen and minimal habitat disturbance.

Ammonia/Ammonium Monitoring on every farm and industry campus that releases Ammonia is a requirement.

Detailed monitoring, mapping and release of data in timely fashion of all EPA datasets in an easily understood GIS-based format.

Using Sentinel 2, other satellite and drone data to monitor all land use enterprises in a similar way to farming so that trees, hedgerows and other vegetation be retained, emissions into air and water and other impacts can be studied in real time and ecocide be punished with grant removal and fines where necessary to stop such negative activities.

Soils need to be well cared for in advance of a finalised Soil Directive. Soil is a living biome and we all rely on soil integrity for our lives. Soil compaction, movement and degradation should be treated as destructive behaviour and treated as ecocide in our judicial system.

Firstly a full definition of Sustainable is required in this document.
So too is one on the Circular Economy
A Just Transition definition would be refreshing

Biodiversity Emergency – it is critical to address this in any Bioeconomy Action Plan. Biology consists of life forms and this BAP is written using exploitative language that considers all other biology on this planet (and human waste) as a resource for us to pillage, just not too much, and only because that is for our own sakes. This approach must not be taken. A much better philosophical basis for any strategy on Bioeconomy is required.

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

   Corporate Governance – independence, charity status rigour, transparency for all not just key stakeholders, total lack of conflict of interest, full financial clarity, Minutes of Meetings and Action Points to be published on a dedicated website for all.

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

In an Innovation, Enterprise and Foresight Pillar the key issues should be much more high-minded, not merely what to do with slurry and belching cattle. E.g. p. 113 Teagasc FARMING FOR A BETTER FUTURE - Technologies for Today & Tomorrow
https://www.teagasc.ie/media/website/publications/2022/Teagasc-Johnstown-Castle-Open-Day-Booklet-2022.pdf
The issues are around how we can live tolerably well while all other life forms can do as well on our shared Planet, allowing for inevitable processes in geologic time such as speciation and extinction.
Energy is the obvious one here, as well as food for us, another form of energy. Also, the bioeconomic values of celebrating our biological resources in so many creative ways, not just as products for a few to make money.

Bioprospecting from other countries must be banned immediately. Backing our own people is essential and this is not happening as yet.

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?*

Ethics need to be applied to all of our messing with nature. Understanding what is present and how nature works before so called "enhancing" our biodiversity, habitats and soils is absolutely essential. We are using biocontrols, GMOPs and other ways to play "God" with nature before we even get out of the starting blocks of knowledge. To make a quick buck, some rush ahead with laboratory innovations that should not be unleashed on nature without all consequences being understood. This is not a game where we can learn by doing.
The ownership of Intellectual Property from bioeconomic research must stay in Ireland for the benefit of people here and nature here.

6. *What key issues should the Nature, Climate & Circular Pillar deal with?*
   Nature – funding for making records of large-Group species that requires detailed taxonomic work – Insects, Fungi, Bacteria
   Climate – we must be planting far more native, local material for genetic integrity of our Irish tree species and associated native and natural flora, fauna and funga. This must be with investment by Irish resources and not as Public Private Partnerships (PPPs) with third countries.
   Just a point – burial under sea, or under land, of CO_2 is not an acceptable bioeconomy circular solution.

7. What key issues concerning consumption patterns need to be examined to close the gap between sustainable supply of biological resources and demand?
Again, the language here is exploitative of other life as if it is an inert geological deposit (and none of these are either) to be in some way "mined" for the profit of a few. This attitude must be transformed or we will continue to have strategy documents that are in no way progressive not to mention transformative!
Food – a vegan diet is essential and vertical farming and horticulture can be a way to minimise land cover requirements. Ireland needs to wake up to the 21st Century on this. Some of the People of Ireland are way ahead of the State on this, in part due to the lobbying by vested interests in intensive, industrial animal farming rather than Organic, kind farming.
To this end Plant Health and understanding of pathology and threats from other countries needs to be prioritised.
On Energy – Prevention is better than cure. The minimisation of hugely electricity-demanding industry is essential. This includes campuses that draw down more subsidised electricity than whole Irish cities. Minimise night light everywhere to help Biodiversity and minimise our loss of energy through pointless night light pollution.

Leftover petrochemicals from Fossil fuels are used in all kinds of ways, much of it for plastics e.g. packaging, PPE etc. and in the pharmaceutical and other industries. We must replace our reliance on petrochemicals as well as fossil fuels so that plastic waste and chemical signatures related to heavy industry are not our ongoing legacy in the archaeologic and geologic record.

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

Conversion to vegetable-based economy as much as possible
Native Trees to be allowed to naturally revegetate our land as much as possible with detailed and extensive study, continuous cover management and minimal intervention. This is to optimise our natural carbon storage, improve our soil security, minimise flooding and water pollution by runoff, address our biodiversity emergency, give wood and non-timber forest products and be a more beautiful place for tourists to visit.
The Irish People to own our own seaweed resource and to only use this in a very sustainable way with native species and monitoring for quality and environmental integrity of our coasts. Enterprises that harm our coastal and marine resources and those that threaten our coasts with pollution need to be discontinued.

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

We need a far more ground up than authoritarian top-down approach. We need full openness and commitment to work together as communities both in research, innovation and social contexts. We are on the same team, or should be and we are in this Global Village together with all of Earth's other life forms. This is the level of respect we need for ourselves, for our food, for our surroundings and our habitats. If we do this, we will no longer have economics based on "If I don't do it (something harmful, unsustainable, exploitative), someone else will. Greed is Bad.

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?*

No. Perhaps Enterprise Ireland and other Clusters/Consortia could focus on this to create truly circular and truly kind ways to work in our landscapes without harming our environment and other biota. A dedicated Foresight organisation could be a way to do this but only if all are kept in the loop.

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

Biodiversity Emergency
Climate Emergency
Habitat Degradation – Ireland is about to be sued by the EU for breaches of our Water Framework Directive outcomes. We have to have a situation where the Irish People are not paying twice – once for a degraded and polluted environment and again paying exchequer funds for such a negative experience. This requires

serious leadership not just for Water but Air, Soil, Habitat, Species richness and other failing measures for our environment. Such a wonderful island deserves better respect and treatment from us all.

12. *What lead market initiatives could support entrepreneurship, development, innovation and the commercialisation of bio-based products, processes, information and services?*
Several sciences and services have been touched on. The most important are
Taxonomy
Interpretation of biological data for the appreciation, training and education of all so that we are aware of and value what our scientists have found and what our natural environment has to show us. Experience is the new tourism. Ireland has hardly started to value and share the real treasures of our country.
Wholly Irish and local produce, made and packaged in a truly sustainable way can be celebrated.
Some of the scientific abuse that is going on here with regard to bio-controls, bioprospecting, development of pesticide replacements based on poor use of environmental data and abuse of the current state of play, whereby we lack more than basic knowledge of the location and health of our biodiversity and its needs e.g. food, shelter, quietude. These are all important to address.

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?*
Irish Intellectual Property to be protected
Irish knowledge and skills to be protected and favoured over outside interests in our Natural Resources
Nagoya Protocol needs to be fully activated for Ireland
Full transparency for all state bodies and semi-state bodies
No PPPs
No outside investment in Irish semi-state bodies
No loss of biological species to patents held elsewhere

14. *What key issues should the Knowledge & Skills Pillar deal with?*
Proper education for all land users
Training for our judiciary on ecocide
Teaching of respect and ethical treatment of other species sharing this island biogeographical area and looking after all species as much as possible
Training in Organic Farming and true respect for this

15. *Can the regional skills and regional enterprise approaches better support bioeconomy development?*
Of course, valuing the traditional ways that people in Ireland planted and used natural resources in the past such as Osier beds to make baskets, a range of

grasses to make thatched housing – these traditional skills are being promoted by the Heritage Council
The need to have native plants and trees grown very locally to minimise movement of plant material so that plant health can be optimised is essential to develop
Learning from the past to develop for the future is a real requirement when fossil fuels and associated plastics and petrochemical industries fail. For example packaging, rope, building materials can all be based on reusable, durable, organic plant material
Material science for housing based on renewables used in traditional methods is also coming back. Living lightly on the land for so many people now is going to be required. We have twice the global population of humans as 50 years ago so this is essential for us all to learn.
Forest Schools not just for children but adults too are excellent so long as impact on natural environments is kept at a low level.
Teaching everyone to grow their own vegetables and fruit wherever possible is a lesson in slow food. Appreciation of the challenges gives everyone more gratitude and therefore a population's sense of happiness increases. Valuing the effort of organically growing our fruit, tubers, vegetables and wood is critical.
Cheap, intensively produced food gathered by cheap labour is not the model for our future. There will be fewer people and we should aim to allow the global human population to decline over time in a natural way so that those who live in the future can sustain themselves well. This is a difficult balance to maintain but pandemics and war over resources will be the result everywhere if we do not manage our species better for the sake of humans in the future and the life forms they share our planet with then. Better that we control our intake and our exploitation and our population than be forced to do so in a random way over time. We are rather like locusts that may realise we are running out of places to go to eat up everything but have no capacity to learn enough to manage ourselves better.
There is a huge bioeconomy opportunity in leadership and management to achieve and sustain balance and fairness in our own self-governance. Can we learn in time to save our species? We really need to learn to trim our needs and wants to what will actually give us a decent life without lots of pointless stuff. Happiness and health are not based on the material things of life beyond the basics. If we can cover them and decent healthcare for all we should be fine. Education and training are core to this appreciation of how truly expensive so many first world things are for our planet to generate. Every person should visit a water treatment plant, an abattoir (if they eat meat), an oil refinery and really see the cost that they often ignorantly impose on the world and other living sentient beings. Surely these topics are what Bioeconomy Action Plans should address as much as identifying biological life to exploit in new ways until we get the last dregs out of our planet, or before someone else thinks of a way to make more money from over 10 million other animals' (plus 5 million of our own) worth of slurry, carcasses/bodies, wash-water from milking cows and other effluent. The productive soils of our planet are washing, along with our waste and rubbish and biocides into great delta extensions causing pollution of our estuaries and coasts.

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?*
Valorising ecosystem services is where we are going wrong. We of course need to appreciate what other species and natural processes do for us but that is not the same as taking as much as we can in diverse ways up to biological system collapse. We are already causing a Biodiversity Emergency. Placing price tags on what our science is only beginning to appreciate is not just ridiculous but dangerous. Value a species that we cannot bring back from extinction? Value a function in cleaning water – an advantage that the highly invasive Zebra mussel could be perceived to offer over native species that it replaced? Valuing cut over bog that is more diverse in plant species than virgin bog, but has far fewer rare bog species present? The end does not always justify the means. Advisors and scientist, biological recorders, taxonomists, true ecologists, often must work in voluntary capacities such as in this consultation process, to participate in any way in our governance relating to nature in Ireland.
Why is market failure so closely linked to valuable knowledge and skills relating to Biodiversity in our economy? This requires exploration and serious amelioration through the Bioeconomy.

17. *Are there any further Pillars/Issues which this Action Plan should address?*
Foresight is so important to protecting our biota or biological “resource” as it is called in this process. Vital here is protecting Irish species from plant health threats to our island from all of the other 91 countries from which we import living and dried plant materials. We also have a duty to protect the countries to whom we export materials to as well.
Legal Pillar for protecting Irish Intellectual Property, our Irish Species, Habitats, Water, Air, Soil; For enforcing Irish Law on those who break the law by abusing or unsustainably managing our Bioeconomy “resources”; To maintain Irish ownership of all Irish biodiversity genetic resources; To help with foresight to protect the People of Ireland and our biodiversity in light of new legal and economic threats to our biological sovereignty; To transpose and ratify laws in a way that best protects our other Irish species and the integrity of our habitats, air, water and soil.

18. *Indicate what the top five priorities for action in the bioeconomy over the next three years should be?*
Reframing of Bioeconomy away from exploitative concepts and traditional approaches that see our biota as a resource that is just something just to be used, granted as “sustainably” as possible. This outmoded way of framing is in desperate need of update so that we hold our complete biodiversity, our soils, our habitats, our air and our waters and their welfare central to any use we humans on the island of Ireland might try to put them.

Our traditional ways of respectfully interacting with these from our language to our uses in a pre-petroleum and petrochemical world must be revived and taught so that our buildings, our transport, our packaging, even our use of water as a

source of energy can be reviewed with a greater appreciation of the strengths of our culture before oil/gas and supermarkets were ubiquitous. Some would think this backward thinking but there is much scientific research, material science and energy conservation knowledge that has been lost or undervalued in our current ways of life. Some of these can greatly enrich our quality of life into the future.

Water taxis, canoeing in towns and cities where there is a safe body of water can all be relatively free and efficient ways to travel short distances that could be made feasible.

We really do need another Turlough Hill/Lough Nahanagan project and microgrid facilitation to reduce the appropriation of our beautiful upland hilltops and blanket bogs for so many huge wind turbines. We need to stop Data Centres and big multinational manufacturing companies using so much of our electricity at subsidised and highly negotiated rates. Planting some flowers outside of these centres is a small plaster over a mortal wound. See DCs for Bees, a partnership with the All-Ireland Pollinator Plan - https://www.hostinireland.com/dc-s-for-bees#:~:text=Dcs%20For%20Bees%20is%20an,has%20never%20been%20done%20before. Greenwashing needs to be rooted out of Ireland.

Ammonia monitoring on farms is essential for identification of local and background levels so that eutrophication from farming can be measured and can inform EPA, Local Authorities, An Bord Pleanála, ongoing scientific research and policy development.