

Bioeconomy and carbon neutrality: “Without further investments we will miss the target”



“Without further investments in the bioeconomy, the net zero emission target will not be met”. Data issued from the EU project Biomonitor point out gaps in the Green Deal and suggest speeding up procedures: “New technologies must be fostered but length and complexity of the European approval process risk discouraging the investors”

"To achieve **carbon neutrality by 2050** we need more investments than those envisaged by the **Green Deal**, otherwise we will never make it. It is **crucial that the European Commission further stimulates the bio-economy and does not drive away investors**". This is not critics, nor politicians speaking, but the figures issued by an EU project which modelled several possible scenarios for the next decades. Lasting over four years, [Biomonitor](#) kicked off in 2018 with the aim of **addressing the information gap in bioeconomy research, to provide political and economic leaders with more effective planning tools**. Justus Wesseler is the project coordinator.

What strategies do the data suggest for achieving the zero emission target by 2050, set by the European Green Deal?

First of all you need to increase investments in the bio-economy. And then you have to make the new technologies ready for use earlier than they are today.



Why are these two steps so crucial?

The bioeconomy can substantially contribute to achieving zero greenhouse gas emissions, but it will not be allowed to play such a key role without further technological changes. That is why the data suggest that we need more investments. Those currently indicated by the Green Deal will not be enough to meet the target of climate neutrality by 2050.

What other scenarios have you taken into account?

One is just continuing business as usual and it would basically result in replicating in the future what has happened so far. A second scenario envisages an extreme strengthening of the bioeconomy, via dedicated investment policies and another one the possible impacts of the introduction of taxes on carbon dioxide.

What do you suggest, then?

It is not up to us, scientists and researchers, to suggest what should be done, but we can say: “Hey, look at our results and see what may happen if you do either this or that.” Our data and scenarios can just provide inputs for policy makers and European institutions to speed up the implementation of the bioeconomy and point out where further adjustments can be made.

For instance?

It depends on goals and priorities. But at the EU level, for example, it might be helpful to direct the investments towards specific sub-sectors of the bioeconomy where the potential for reducing greenhouse gas emissions is higher than for others.

Are you then satisfied by the outcome of the Biomonitor project?

Yes, definitively. At the beginning we faced a kind of blank page. Back in 2018 we lacked a lot of information on the development of the European bioeconomy and its implications for sustainability. Which means implications for the greenhouse gas emissions, for the biodiversity but also for the labour market. Re-structuring data has not been easy, especially in some bio-economy sub-sectors characterized by the presence of just a few stakeholders. Additionally, due to the data protection regulation, some of them are only available at the aggregate level. But despite the challenges, I'm very satisfied because we managed to achieve some very relevant results.

What is the one you are most proud of?

We have developed better methods for assessing the sustainability of the bioeconomy, which can now be used by different stakeholders: EU policy makers, member states, private companies. Some information was already there, but we helped to better organize the data and to make it available for further assessment.

Is the job is done, then?

Far from it. Our objective was just to pave the way for a much longer journey. We identified the data gaps, but it was not up to us to fill them. We just provided methodologies which can now be picked up by different stakeholders.

Paving the way for the bio-economy also means embracing a new mindset. Do you think time is now ripe for that?

When Biomonitor kicked-off, the mindsets were not ready for it. But due to the war in Ukraine, everything changed very quickly. Policy makers and citizens have become much more aware of how dependent we are on other regions of the world, with respect in particular to energy supplies. They have understood that we do need to use energy more sustainably. And at this extent the bioeconomy



can be crucial. It can help improve the use of biological resources and converting them into energy, but also into other useful bio-based products, which might help reduce our dependency on Russia.

You have mentioned the war in Ukraine and the spike in energy prices: how will such a geopolitical context affect the implementation of the bioeconomy?

It is of course quite a challenge. The effects will be positive and negative at the same time. On the one hand, the Ukrainian crisis has shown us how important sustainable energy supplies are for the European Union. Generating energy from biological resources will become more important and this will foster the investments and support the development of the bioeconomy. On the other hand, some bio-based products are already affected by the rise in energy prices and this might discourage consumers.

Some critics argue that lots of sustainable solutions are still quite expensive today, thus slowing down the implementation of the bioeconomy.

Some solutions may still be a little more expensive, but this just proves that we need more progress and more investments to scale them up. Over time, costs and prices will go down as they always do when you develop new technologies. And then, look at what Tesla achieved: their cars might still be just for big spenders, but they basically forced the whole car industry to follow and increase investment in electric cars.

Let's finish with a tip for the future.

Our data also showed that the length and complexity of the approval process for new technologies are extremely expensive for companies and end up discouraging investors. On a very concrete basis, the European Commission could, for instance, reduce such time frames and, in doing so, stimulate the development of the bioeconomy. It would cost nothing and only require political will. It's in their hands!

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