Here are some ideas for the biofuels and bio-based chemical industries to consider when thinking about communicating their processes

Building trust in bio-based communications

As the biofuels and bio-based chemical and plastic industries become ever more sophisticated, they are able to offer real solutions to the societal challenges we face, from climate change to overflowing, methane-emitting landfills and resource scarcity.

If you attend bio-based chemical, plastic or biofuel conferences, you'll already know the amount of technology which is available. To ensure these solutions become mainstream successes, one key element lies in communication and media strategies.

Times have changed and things have moved on from old school marketing communications focused on price and performance. For the bio-based industry to fulfil its true potential and improve life on this planet, it needs to communicate in a responsible and credible way.

Belgium-based Sustainability Consult has developed a guide for the bio-based industries, as part of a credibility check to test companies' messages and encourage transparency and engagement in communications:

Consume less and consume better

The bio-based sector and the biofuels market, if handled right, could be a huge contributor to a new economy, helping us to produce and consume products and energy in a more sustainable way. Some critics argue that there is no such thing as sustainable consumption and that the only sustainable way to consume is not to consume at all. Re- and upcycling (turning used goods into new products) are a big part of this non-consumerist vision but we will always need, or often want, to buy products and consume energy.

We need to rethink how products are made, the energy they require to be produced, the energy consumed during use and how products are disposed of if we are to move to a more sustainable model of consumption and production. There are some shining examples of companies like sportswear brand Puma and carpet company Interface taking a lifecycle view to certain products, but these examples are still few and far between.

Alternative energy sources like biofuels and renewables are part of the solution so that the energy consumed is not derived from fossil fuels. Next generation biofuels can hopefully also play a role in a more sustainable future.

The bio revolution is happening. Not only are biofuels, bio-based chemicals and bioplastics able to replace their petroleum-based equivalents as drop-ins, but completely new biofuels, plastics and chemicals are already a reality and their market is growing rapidly.

'Biotech' is a dirty word in some circles but genetically modified organisms are used for some biofuel and chemical production'

'Bio' does not always mean sustainable

If we are to avoid further backlash against biofuels, and prevent a similar response against bio-based chemicals and plastics, we need to communicate about the industry in a responsible way and engage transparently on the issues. Companies should take a long-term lifecycle approach as some plant-based products may require more land, water and energy than their petro-based alternatives.

Back-up your sustainability claims with data

Lifecycle analysis is one way to measure impact in the production, use and end-of-life phases. It takes into account everything from raw materials to waste or degradability and goes further than carbon footprint analysis.

We firmly believe that the bioeconomy is the way forward and policymakers are not far behind, but there is no silver bullet. Every decision we take has a knock-on effect and every raw material choice has an impact. With bio-based chemicals and fuels, the knock-on effect can be land use or competition for food crops.

The food vs fuel conundrum is not new and was partly responsible for a policy U-turn that changed European biofuel targets retroactively. Second generation biofuels and bio-based chemicals should hopefully provide a solution to this issue.

Where is the 'waste' coming from?

It should be more sustainable to use forestry or agricultural waste for bio-based chemicals and fuels than

to compete for food crops. The industry needs to be realistic about the supply of waste that is available for next generation bio-based chemicals and fuels however.

Forestry or agricultural waste is not just lying around waiting to be carted away for free. Either it is being used on the farms and forests for silage, mulch or power generation or it is already being sold. These residues already have a value and as demand increases, so will the price. Crops grown specifically for bio-based chemicals and fuels are another option but this can lead to indirect land use change.

Be more transparent on GMO

'Biotech' is a dirty word in some circles but genetically modified organisms (GMO) are used for some biofuel and chemical production. While the industry promotes biofuels, and the bioeconomy in general, as a way to replace fossil fuels and decarbonise the economy, there is little transparency on the fact that many of the catalysts for fermentation, whether bacteria or yeast, are created in a lab for optimum performance and are in fact genetically modified.

That could be a serious threat to the long-term sustainability of the industry, which believes that the final product made with genetically modified bacteria or yeasts is not itself genetically modified. Policymakers, consumers and environmental non-government organisations may not buy into this argument however.

'Some critics argue that there is no such thing as sustainable consumption'

Consumer acceptance of biofuels, bio-based chemicals and bioplastics risks being negatively impacted if there is not enough communication on the GMO issue. As far as the European public is concerned, there are few or no GMOs in Europe so we must engage openly for the credibility of the sector.

In the biofuels sector, where there has already been the food vs fuel backlash, a new relationship of trust needs to be built with the consumer, policymaker and NGO.

Stakeholders play an important role in the societal acceptance of new technologies and companies who engage with their stakeholders tend to be more sustainable in the long run, including more economically sustainable.

For more information:
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