



Living without oil - Audio

Is science and technology enough?

Dr Adrian Higson:

On the question is if science and technology will be sufficient to have a successful migration towards bio-based chemicals and materials, in the timeframe of fossil resource availability and climate change, in terms of fossil based ability yes I think it will, and I think we're making such rapid progress in areas of synthetic biology and other bioscience areas that that technology will come along quite quickly, and we'll soon be in a position where it is more cost competitive to produce a lot of the materials that we need from a bio based route.

How quickly that happens is not just based on science and technology though. That will also be depending on what governments do to incentivise the migration and in terms of how it trains its work force in different areas of the world, what incentives it puts in place to encourage people to make that change. That will influence the rate, if not the ultimate end point of where we get to.

Whether or not science and technology will answer all the questions we need in terms of climate change that's really a question of our energy use, so how we produce transport fuels, how we produce electricity, rather than a question for the chemicals industry because the chemicals industry uses only a small fraction of the fossil resources we have in the world. I don't think science and technology is enough in that case, I don't think we can wait for science and technology to reach a cost base that makes it competitive with fossil fuels for energy and heat and transport fuels. I think we need to push towards greener sources of electricity, greener sources of heat, and greener sources of transport fuel, and that requires a political and social intervention as well as a science and technology one.