Chemical recycling of plastics '10 years away'

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It would be "optimistic" to suggest that chemical recycling will become a viable outlet for waste plastics inside the next decade, a specialist in the sector has said.

The comments came from Rob de Ruiter, business executive for the Dutch independent research organisation company TNO, who was speaking at the Bureau of International Recycling (BIR) plastics division committee last week.

Having insisted that there is still an important role to be played by mechanical recycling, Mr de Ruiter also explained that other options such as solvent-based dissolution and thermochemical conversion can also play a part.

Based on current circumstances, he expected pyrolysis to be "a big factor in the future".

Mr de Ruiter highlighted the growing involvement of major companies in the recycling sphere, as evidenced by the recent announcement of a Dow/Fuenix partnership covering the supply of pyrolysis oil feedstock made from recycled plastic waste, to be used to make new polymers.

However, when asked by an audience member if these will become commercially viable inside the next five years, Mr de Ruiter said that it will take time.

"For the the plans in place, the biggest is for 100,000 tonnes a year, which is still in the demo stage. If these demos are successful in four or five years we will know, then the next steps will come. Ten years is optimistic for this I think."

He added however that there is big investment in the technologyand it is evident that people "believe in it"

Mr de Ruiter added: "In 10 years we will see more plants which are profitable, it needs time but it is unavoidable that we go in that direction."

Markets

Prior to this, the panel consisting of plastics recyclers from across Europe discussed the market conditions, with all agreeing that demand has slowed and quality is as important as ever.

According to the China Scrap Plastics Association's executive president Dr Steve Wong of Fukutomi Co. Ltd, current market conditions in South East Asia are "some of the most challenging ever". Margins have contracted, with many recycling operations either going bankrupt or struggling to survive.

While there was no UK member on the panel, Ross Bartley, the BIR's trade & environment director, explained that the organisation is compiling a list of plastics recycling operations – both mechanical processors and otherwise – which it aims to send to the governments of all OECD countries.

This will assist them in making "informed decisions about what materials can move to those facilities".

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