

Tyre recyclers 'disappointed' by support levels

Around 81% of the 3.2 million tonnes of tyres arising last year in the EU-28 and Norway were treated 'in a sustainable manner', with almost equal volumes going for material recycling and for energy recovery. However, the overall percentage was significantly lower than that for 2013, largely because of a sharp reduction in the numbers of tyres channelled into retreading, it was explained at the BIR tyres committee meeting in Prague by Dr Valerie Shulman, secretary general of the European Tyre Recycling Association.

The guest speaker highlighted a number of areas of concern for recyclers, including the lack of transparency in data provided by end-of-life tyre (ELT) management groups. Recyclers were also 'disappointed' by the limited government support available in terms of finance, incentives and 'green' public procurement, as well as by legislation that appeared 'outdated' in some instances. Fazilet Cinaralp, secretary general of the European Tyre and Rubber Manufacturers' Association, suggested the design of mandatory 'green' public procurement schemes would assist in the vital task of supporting the development of new markets for secondary raw materials. She also urged the provision of EU-harmonised end-of-waste criteria for materials derived from ELTs. In evaluating processing options for ELTs, Dr Wilma Dierkes said grinding offered 'rather limited' applications while pyrolysis required long residence times and high levels of investment. The associate professor of elastomer technology and engineering at the University of Twente in the Netherlands concluded: 'We should concentrate on devulcanisation because then you can get it back into tyres.' A joint project with Dutch ELT management body RecyBEM to scale up the continuous devulcanisation of tyre polymer SBR in an extruder under protective atmosphere and with intensive cooling of the 'devulcanizate' had yielded 'quite promising' results, she told delegates.



Fazilet Cinaralp.



Dr Valerie Shulman.

Knowledge transfer vital for recycling car plastics

Plastics

Sorting of plastics from automobile shredder residue (ASR) remained 'difficult' but 'technically possible' - but only with high levels of investment in advanced post-shredder treatment plants, according to Manuel Burnand, director of environment and development at Derichebourg in France and the new chairman of the BIR shredder committee.

Research had discovered around 30 different grades of polymer in end-of-life vehicles, with polypropylene the most abundant, he told the BIR plastics committee meeting in Prague. From trials, it had also been found that, on average per car, there was little technical difficulty in recovering 12 kg of plastics from the shredder light fraction and 4 kg from the shredder heavy fraction. But while Burnand expected the volumes of ASR-derived plastics to increase in the future, he suggested these would probably be limited to 'easily sortable' grades unless new technologies came on to the market.

The growing importance of this topic was emphasised by BIR plastics committee chairman Surendra Borad Patawari of Gemini Corporation NV in Belgium: plastics accounted for 9-15% of a vehicle's weight but this proportion was expected to rise to 18% by the year 2020. Recycling these plastics was 'very complex', he argued, and required 'transfer of knowledge' so that the dismantler or recycler knew what plastics had been used and where they were located within the vehicle.

'Silver linings'

In his general market summary, Borad identified 'some silver linings in the grey clouds' for plastics recyclers at a time when volumes, prices and confidence were all down. These included 'huge' drops in sea freight rates and

therefore 'lots of opportunities for geographical arbitrage'; it was now possible, he noted by way of example, to import from the USA into Europe. He also asserted that 'the quality of scrap has improved tremendously' in recent years. Borad confirmed that, in 2015, China's plastic scrap imports were well short of last year's levels, with the total of 3.58 million tons for the first six months of this year comparing to 8.45 million tons for the whole of 2014. 'We expect the downward import trend to continue,' he added. Dr Steve Wong of the China Scrap Plastics Association confirmed that the country's plastic scrap prices had dropped by more than half in some instances.

'Substantial environmental benefit'

Based on a scientific comparison of systems with and without recycling, mechanical, semi-mechanical and chemical recycling 'all showed benefits compared to the virgin system', underlined Dr Li Shen, assistant professor at Utrecht University's Copernicus Institute of Sustainable Development in the Netherlands. In a guest presentation focused on PET, she added: 'All approaches show that recycled fibre has a really substantial environmental benefit in terms of primary energy demand and carbon footprinting, and provides a lot of savings.' The results of her research had been shared with the European Commission, she pointed out. □



Surendra Borad Patawari: 'huge' drops in sea freight rates.



Dr Li Shen: recycled fibre provides a lot of savings.

Textiles

Recyclers must proclaim their know-how

The recycling industry is under scrutiny like never before - and yet its environmental contribution is often misunderstood or underestimated, delegates to the BIR textiles division meeting in Prague were told by the body's president Mehdi Zerroug of Framimex in France.

The next United Nations climate change conference (COP21) was due to take place shortly in Paris and so 'eyes have never been fixed as

intensely on recycling', he said. 'The future of our industry has become a political issue.' To avoid falling victim to 'inappropriate regulations', he continued, 'we have to explain our industry's needs and show that these needs match the public interest.' Therefore, the industry should look to demonstrate its collection, sorting and recycling know-how as well as its commitment to research and development, he emphasised. According to Zerroug, the industry should 'show what textile recycling really is and not

what too many people still think we are'. And on a specific issue of terminology, he suggested that textiles collections were still widely associated with 'donations' - a word he believed should be replaced by 'deposit' because the latter was more closely linked to wastes requiring the collection, sorting and marketing provided by the industry.

'Difficult phase'

Zerroug lamented that textiles recyclers were currently enduring 'a difficult phase' and that this was expected to persist into 2016. His downbeat assessment was echoed in a succession of country reports, perhaps the gloomiest of which was from the UK Textile Recycling Association's Alan Wheeler whose list of woes included: textile bank grade prices being half what they were three years ago; full warehouses; and businesses looking to sell more of their assets. Indeed, company closures were continuing to take place and 'I suspect that we may see more', he added.

Whereas in the past collectors could use some of the profits generated through higher-value goods to offset the cost of collecting and processing lower-value grades, 'this is no longer the case', according to Wheeler. 'Many collectors have reduced the size of their collection areas and will now only take better-quality items.' And he went on to say: 'We are now seeing clothes being dumped at recycling sites by unscrupulous gangs who have been caught out by the plummeting markets and are no longer able to sell on their low-value goods - and yet there is still some stealing of higher-value goods.'

'In a big depression'

In his report for Belgium, Pol T'Jollyn of NV Recutex argued that 'very high sorting costs and very low prices for the recycling material' would mean that 'poorer qualities of original will become very difficult to sort'. He added that the Eastern European market had been undermined by political instability and devaluation of currencies in some countries - a view echoed by Sauro Ballerini in his comments for Italy. The feathers market was 'in a big depression', the latter added.

Contributors to the meeting also mentioned a range of other difficulties confronting the sector, including payment problems and lower productivity from collection containers. □



Mehdi Zerroug: Industry should 'show what textile recycling really is'.

Support for 'legitimate' collectors, sorters and recyclers

Price has become the pre-eminent consideration in the tender process for handling used textiles. This has enabled 'easy market entry' for businesses offering 'marginal' collection and processing methods, with the result that high-quality sorting and processing of used textiles can no longer be guaranteed, according to Nicole Kösegi, spokesperson for Germany's Gemeinschaft für textile Zukunft (Future of Textiles Association). In her guest presentation to the BIR textiles division meeting in Prague, she explained that the association was championing voluntary guidelines which clarify important terms and requirements for high-quality collecting, sorting and processing in a bid to support 'legitimate collectors, sorters and recyclers'. She underlined: 'We don't want to interfere with the market; we want to ensure better competition.'

Fellow guest speaker Hanna Ljungkvist of the IVL Swedish Environmental Research Institute detailed the Nordic region's attempts to direct more used textiles into reuse and recycling rather than landfill and incineration. Aims include: to double the share of post-consumer textiles collected separately when compared to 2012; to eliminate illegal operators; and to create new jobs - perhaps as many as 4000, she suggested - through collection and sorting initiatives.



Nicole Kösegi (left) and Hanna Ljungkvist.