Global demand for materials is expected to more than double by 2050. PCI Consulting Group predicts that the total polyester market will reach 61 million metric tons by 2020, yet oil reserves are in decline and supplies are becoming increasingly unstable. Though recycled polyester is expected to have a growing role in the sector, other solutions are needed.

“Bio resources” provide an alternative to petroleum-based fibers whilst at the same time opening up opportunities for new performance capabilities with reduced environmental impacts.

Resources used for biopolymers are ever evolving to create better performance from the least impact. Traditionally biopolymers come from renewable cellulose and starch, however today they can be produced from a broader range of raw materials, such as lipids (oils), bacteria, fungi and algae, that enables us to do more with less. The evolving nature of these is referred to as 1st, 2nd and 3rd generation bio feedstocks. The industry is ultimately working towards benefitting from biopolymers and reducing impact on land use or food commodities. As a more emerging fibre there will always be concerns and debates over bio-based alternatives, such as land use and genetic engineering and unknowns around the true benefits of longer term use.

The use of bio-based products has grown at a steady pace in the last decade. In 2005, they accounted for 7% of global sales and around US$77 billion (£49 billion) in value within the chemicals sector. One estimate is that by 2020 the global market for bio-based products will grow to US$250 billion (£158 billion) and that by 2030, one-third of chemicals and materials will be produced from biological sources, including bio-polymers and bio-plastics.

As Textile Exchange (TE) looks to take Bio-based Synthetics (BS) into its portfolio of lead fibers, a cross-industry working group (WG) has been proposed to bring together the knowledge and expertise required for promotion and development of BS across the TE member base, and to turn BS into more of a commercial reality. The BS breakout session at TE’s Textiles Sustainability Conference in Mumbai in October 2015 generated good feedback and there was much interest from participants in becoming more involved in this subject.

We now, therefore, invite any supplier, manufacturer, or retailer with an interest in developing a strategy for the development of bio-based synthetics to come forward and join this new WG.