

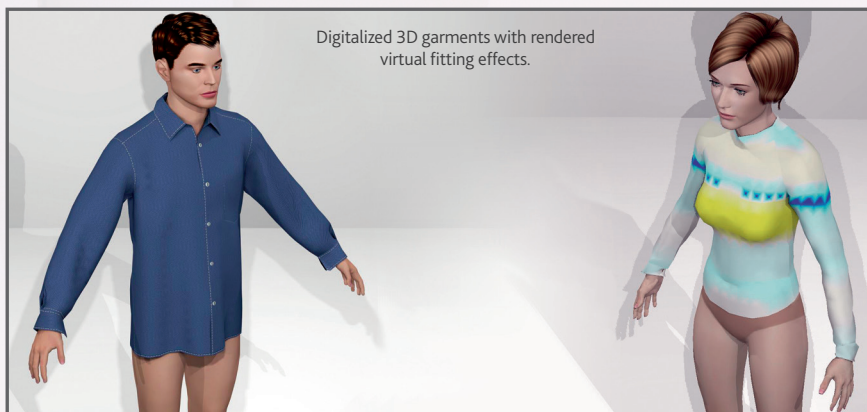
A platform for growth in textiles

- ★ The textile industry has historically been an important part of the European manufacturing sector, but over recent years a large amount of production capacity has shifted away from the continent.
- ★ The FBD_BModel project is developing a new interactive digital design platform that could help improve competitiveness and rejuvenate the European textile industry, as **Dr Xianyi Zeng** explains.

The textile and clothing industry

has historically been an important part of the European economy, but over recent years a large amount of production capacity has shifted to countries with lower wage costs. An interactive, cloud-based digital design platform could rejuvenate the European textile industry and greatly enhance its competitiveness, a topic at the heart of the FBD_BModel project. "The wider aim is to optimise the resources in the textile supply chain," says Dr Xianyi Zeng, the coordinator of the project.

This work centres around building up a new digital technology platform to connect different parts of the supply chain, from fibre, yarn and fabric producers to garment manufacturers, for the development of a new, knowledge-based business model in the big data era. Renowned members of academia (Ecole Nationale Supérieure des Arts et Industries Textiles, University of Manchester, University of Borås, Deutsche Institute für Textil und Faserforschung Denkendorf), representatives of the textile and



fashion industry (Bivolino, Beste, Azadora, Kuvera), technology and engineering providers (Fitizzy, Desap Entreprises and Grado Zero Espace) as well as a consulting firm (BeWarrant) are contributing to the ambitious goals of FBD_BModel. "We are developing a digital platform in the project. Small textile manufacturers already exist in Europe, but they are relatively isolated, they have no knowledge of different markets," explains Dr Zeng.

The consumer can even be directly involved in the design process - one of the business-to-consumer scenarios being explored in the project - which Dr Zeng says represents a sharp departure from the conventional approach. A set of recommendation systems, taking account of fitting, hand feel, and wear comfort have also been developed, which act effectively as virtual sales advisors. "The system takes account of a consumers' sensory

FBD_BMODEL

A Knowledge-based business model for small series fashion products by integrating customized innovative services in big data environment (Fashion Big Data Business Model)

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Xianyi Zeng is a full professor in ENSAIT Textile Engineer School, France, and Director of the GEMTEX National Laboratory. His main research interests include artificial intelligence, digital fashion, intelligent wearable systems, and supply chain management. He has published more than 130 papers in peer-reviewed international journals.



Previously the consumer had to **passively accept** a new design, there was no interaction with the designer. Now, we have created a platform for the **designer and the consumer to interact**.

Digital platform

This represents a significant problem, which the FBD_BModel consortium is working to address through developing a digital platform that will enable different parties in the supply chain to collaborate, from fibre and yarn producers, fabric and garment manufacturers, to designers and production planners. "With a digital platform, partners can collaborate, for example in choosing the right suppliers," outlines Dr Zeng. Researchers in the project are also developing intelligent data services, where databases from different parts of the supply chain are connected. "For example, brands and companies have data about the market, and this can be used to provide different data services," continues Dr Zeng. "Also, a wizard to support managers' decisions for supplier selection and dynamic planning of production orders by graphical simulations has been developed."

preferences and their specific requirements. It then proposes the best-matching products," outlines Dr Zeng.

The technology platform and data services have been developed over the course of the project, now Dr Zeng and his colleagues are turning their attention to how they will be used. The platform and the data services will be applied to four different business cases by using new business models. "One is about the personalised design of shirts for men. Our platform is being used to provide more services to consumers," says Dr Zeng. The wider aim here is to enhance the competitiveness of the European textile industry, and so encourage its further growth and development "While labour costs are relatively high, the advantage for the European economy is that there is the possibility to use the power of technology to improve the efficiency of traditional industry," says Dr Zeng.

