Project iBUS: an integrated business model for customer driven custom product supply chains

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The overall objective for iBUS is to develop and demonstrate by 2018 an innovative internet based business model for the sustainable supply of traditional toy and furniture products that is demand driven, manufactured locally and sustainably, meeting all product safety guidelines, within the EU. The iBUS model focuses on the capture, creation and delivery of value for all stakeholders – consumers, suppliers, manufacturers, distributors and retailers.

Project Goals

The main focus of iBUS is to drive sales for EU traditional toy and furniture manufacturers by leveraging internet based technologies, focusing on safe products, quality, design and innovation. In this new iBUS model consumers become designers, designing, customising and placing orders for their own products online in the iBUS cloud. They will be supported by embedded services in iBUS, developed in the main by SME Technology providers. These services include Augmented Reality design assistants, design verification tools for compliance with EU product safety guidelines, analysis of environmental footprint and prototyping with Additive Manufacturing. Subsequently, parametric engineering design principles will take the design from concept to demand. This demand will then be synchronized and optimized across the supply chain, supported by the embedded supply chain optimization tools, to produce sustainable demand

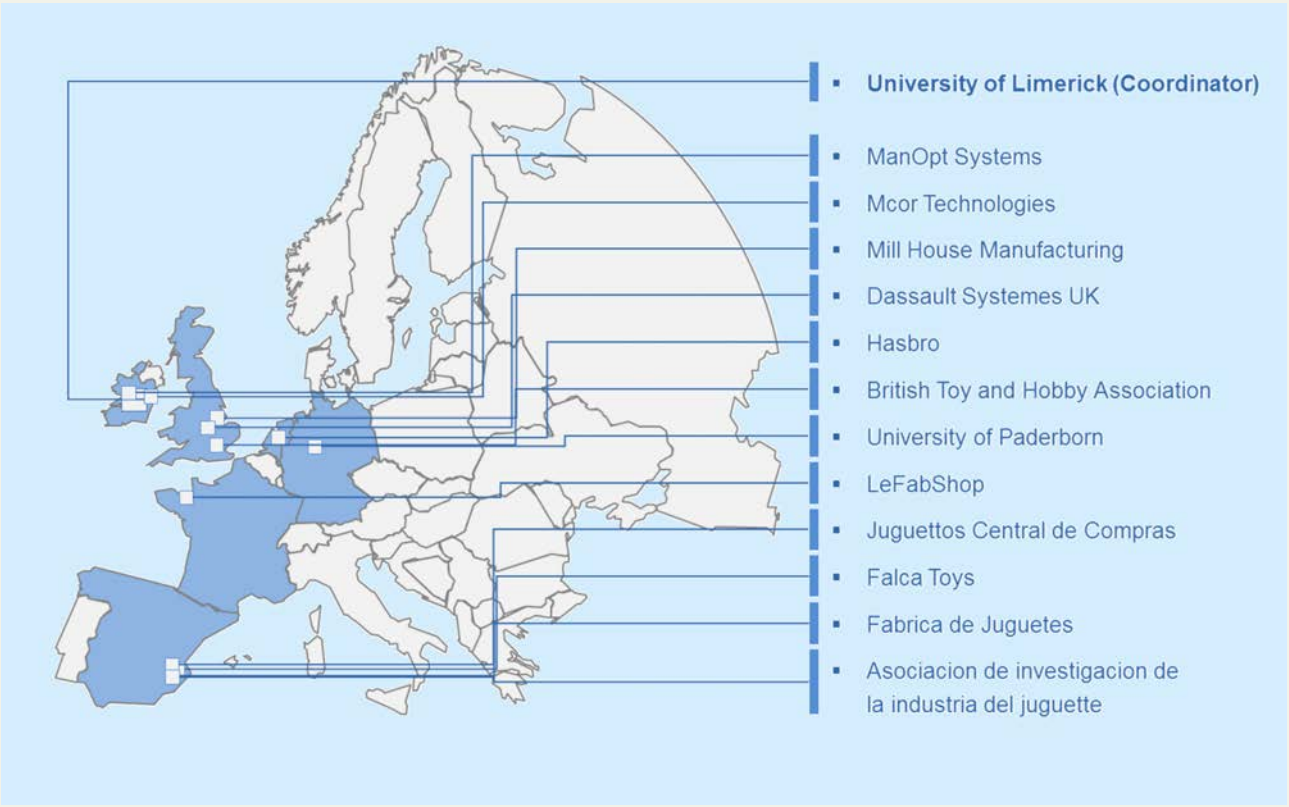

Figure 1: iBUS –participating partners.

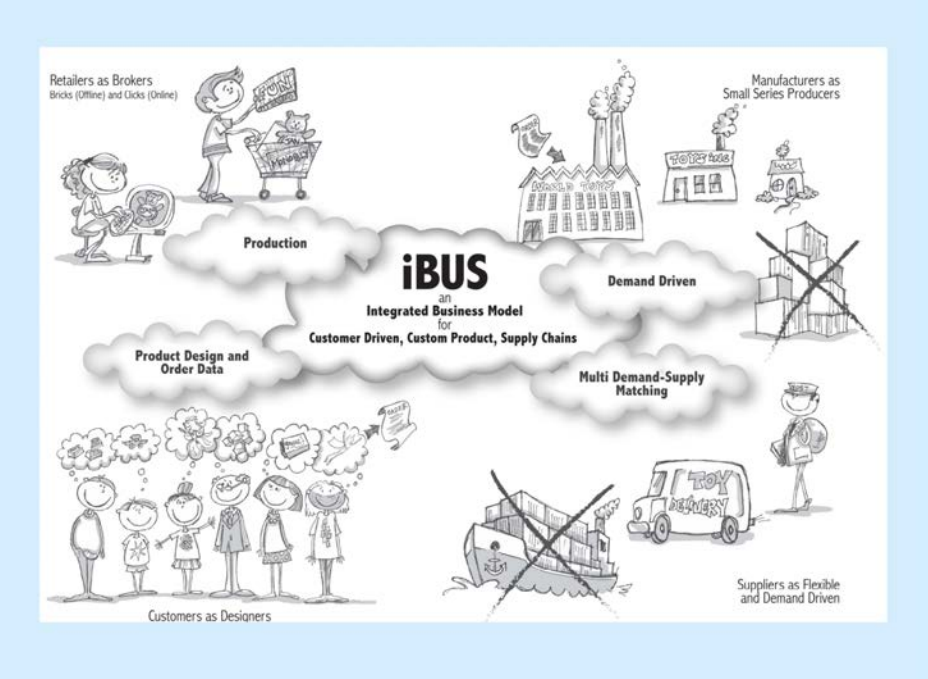

Figure 2: iBUS – an integrated business model for customer driven custom product supply chains.

driven production and supply plans. Manufacturers will then produce the furniture and toys in small scale series production driven by the actual customer demand. Suppliers will have visibility of, and make decisions based on, end-customer demand. Likewise, customers will have visibility of their orders through all stages of production and delivery. The infrastructure will be cloud based using internet and social media technologies, allowing interaction and collaboration, but also accessible to homebased or small business users, promoting social inclusion.
iBus has a budget of 7.440.362€ whereas 6.065.305€ are funded by the European H2020 programme.

DMRC Participation

The main participation of DMRC is in "Customised Product Design Virtual Environment" (WP3). Here, a software system shall be developed enabling the customer to design the product himself. Self-designed products have to be manufacturable and to follow the European safety guidelines. Therefore the system has to check these requirements to ensure a safe production. The manufacturing is supposed to be done locally and demand driven at home or at small fab shops near to the customer, mainly by Additive Manufacturing.