

UdZ

/ Edition 01.21

The Data-driven Enterprise

FIR international

FIR Global Benchmark

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With the Right Approach into the Digital Future**

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**Concept for an International Co-creation Platform
in the Furniture Sector**

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The next generation of wireless connectivity, 5G, is becoming a hot topic in industry. However, there are still many myths and misconceptions surrounding the new wireless technology. By enabling machine-based communications, 5G's capabilities go far beyond mobile broadband.

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IMPRINT

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BaSys4Dash

The aim of the 'BaSys4Dash' research project is to develop a partially automated, dashboard-based decision support system for two user companies. The BaSys 4.0 software system provides the basis for the partially automated evaluation of processes and the visualization of information on dashboards that is tailored to the situation and application at hand.

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MarryIT

The aim of the research project is to support SMEs by providing a methodically guided as-is analysis and evaluation of the current IT-OT integration status.

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EDI-Multiply

The aim of this sub-project is to achieve a multiplier effect in terms of potential business connections.

// SPECTRUM – THINK TANK

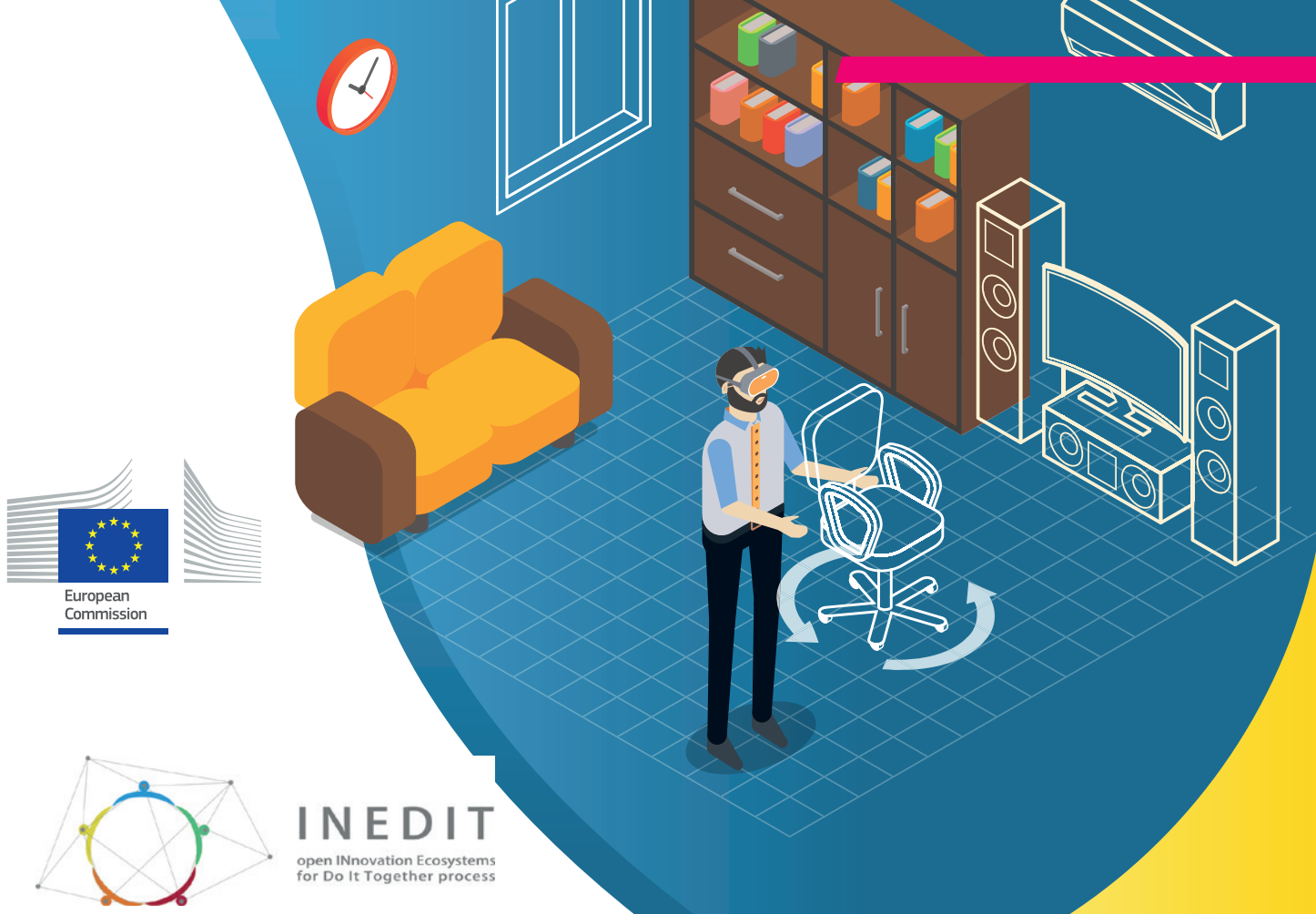
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INEDIT
open INnovation Ecosystems
for Do It Together process

INEDIT: Enabling Multidimensional Collaboration
Through Innovative Business Models

Concept for an International Co-creation Platform in the Furniture Sector

Nowadays, in the furniture industry, low-cost furniture is largely mass-produced. The products are typically short-lived and made of low-quality materials. Strong competition is driving smaller companies out of business, and aspects of environmental sustainability increasingly take a back seat. Customers who are looking for more individualized pieces of furniture are often confronted with long delivery times, high prices, and low customer involvement. Against this backdrop, the EU project 'INEDIT' is pursuing the goal of developing a platform on which custom-made and sustainable pieces of furniture can be produced and traded at a fair price. Following the "Do-It-Together" approach, a business ecosystem is created that adds value not only for customers but also for designers, suppliers, and manufacturing companies. This new type of collaboration and the diversity of possible forms of cooperation can no longer be implemented with traditional, one-dimensional business models. Instead, the various business model concepts are to be integrated into a single approach. The platform helps to build powerful collaborative value networks that lead to high customer satisfaction.

The desire for individualization is particularly evident in the furniture industry, where the domestic do-it-yourself approach is most pronounced. In this industry, individualization typically means custom-made products, which are associated with high costs. The key value proposition of the INEDIT project is to break this association. In local specialty stores, long delivery times of 14 weeks, for example, are the rule – a standard set by the industry. Furniture discounters, on the other hand, deliver almost instantaneously, but the lower quality of the furniture often leads to short usage cycles and less sustainable forms of production. There is a lack of holistic concepts for designing and producing highly customized furniture that is made from sustainable and locally available raw materials and manufactured locally by local businesses. So how can an ecosystem for collaboration be designed that reconciles different business interests, bridges the worlds of design and production, and aligns payment and usage models?

In order to better understand the framework conditions for such business models, first, relevant business areas were identified and various successful platforms analyzed that offer value propositions similar to those of INEDIT. Typically, such platforms strongly involve customers as early as the development and production stages. As a basis for the analysis, various evaluation criteria were defined. These included the number of users and the degree of involvement of both customers and manufacturers. A total of 20 platforms were analyzed and specifically examined in terms of strengths and weaknesses of existing business models. The evaluation revealed that there are two groups of platforms: Platforms that focus on the best possible integration of customers and those that place particular emphasis on the best possible integration of manufacturers. Business models of customer-oriented platforms focus on the buyer and incorporate their input and creativity into the products. Nevertheless, the degree of customization as well as product complexity typically remains low, as the resulting product design must be suitable for mass production. By contrast, production-

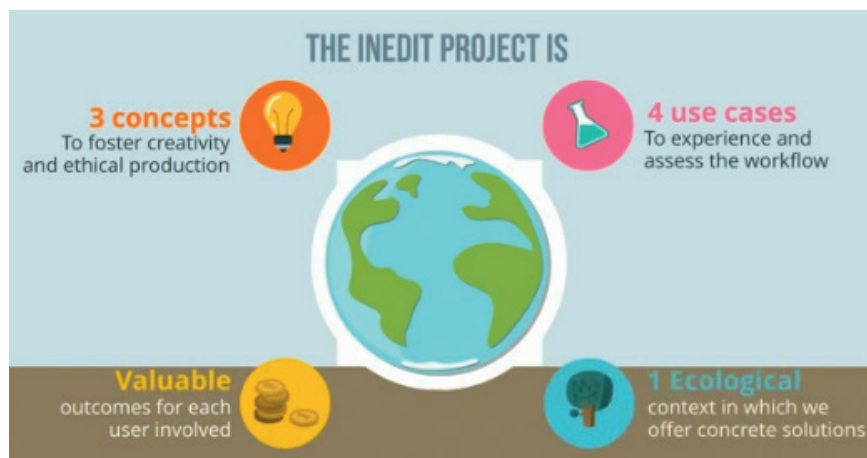
oriented platforms focus on interdependencies in production. This allows more complex products to be developed, but the lower level of customer involvement leads to reduced creativity in product development.

This exclusive focus of existing furniture platforms on either the customer or the manufacturer has several weaknesses. The use of platforms that enable customized furniture production results in very high prices that are not affordable to many consumer segments. Other weaknesses include very long delivery times and the neglect of sustainability aspects. Another shortcoming is that the furniture manufacturers or the designers are not involved in the idea generation process and customers cannot directly express their ideas and preferences.

These problematic aspects can be attributed to a lack of collaboration and insufficient integration of the two areas of design and production. Therefore, in the INEDIT project, a business model is being developed that is aligned with the needs of both customers and furniture manufacturers. The goal is to ensure a form of close cooperation and to enable seamless collaboration between all stakeholder groups. The platform concept bridges the two worlds of design and production by connecting the different stakeholders via the platform's business model. As a result, the involved parties are able to co-create the piece of furniture together and bring in their ideas, plans and proposals for the product. To this end, the platform offers a co-creation process that is divided into the design phase, the prototype phase, and the production phase. The stakeholders involved in the co-creation process are divided into four groups: Customers, furniture manufacturers, designers, and craftspersons. These stakeholders can jointly develop pieces of furniture using the platform. Customers share their ideas and are involved in, or have an influence on, a large part of the production process. They work together with designers and manufacturers who evaluate and visualize customers' product ideas. Craftspersons may be involved to build prototypes or create one-off

pieces. In addition, craftspersons and manufacturers collaborate to validate the production process for newly designed pieces of furniture. The goal is to make the successfully co-created product ready for series production, if desired. The collaboration of the individual stakeholders is illustrated in Figure 1.

The platform provides opportunities for process control and digital tools for collaboration and the joint development of pieces of furniture. The dynamic



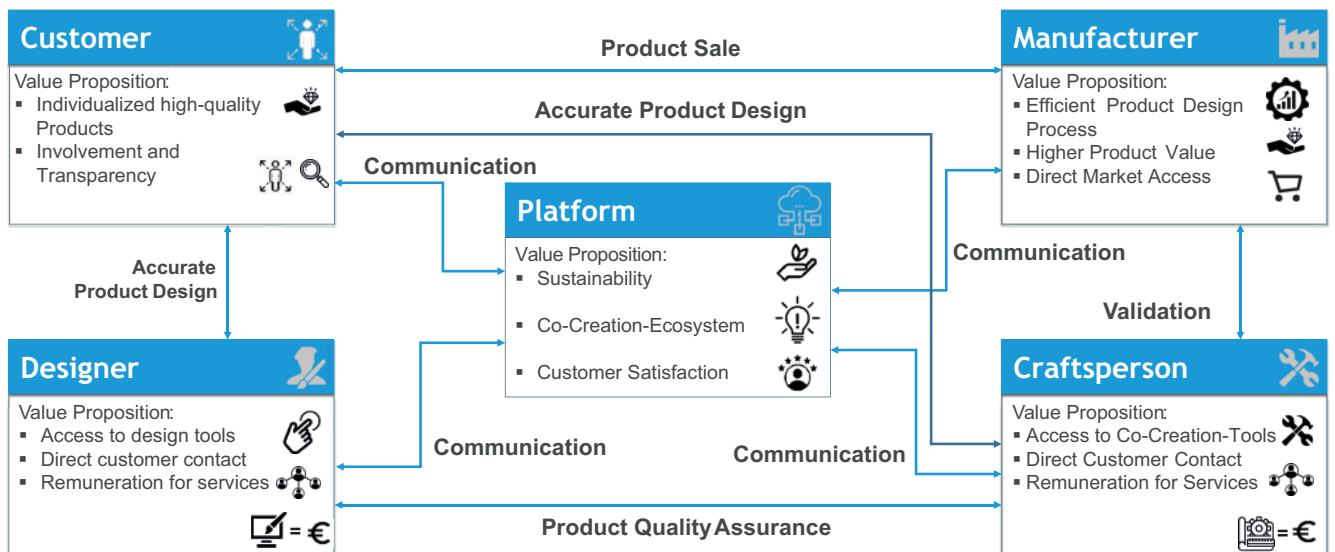


Figure 1: Value propositions for the various stakeholder groups and interfaces between them (own illustration)

collaboration between stakeholders can be facilitated, for example, through a community forum. This enables the rapid exchange of information, which can be supported with the help of Virtual Reality (VR) or augmented reality (AR) technology. Furthermore, during the design phase, the customer can select the material of choice from a catalogue. In this process, information on environmental sustainability and production time is made available to the customer. The involvement of local manufacturers ensures that the product is locally produced; as a result, local businesses are supported

and delivery times are reduced. In this way, clear rules can be defined and agreements on the later manufacture of the product can be made at an early product stage. The INEDIT platform addresses a broad market of customers without sacrificing customization of furniture. The solution lies in combining the advantages of production-oriented and customer-oriented platform business models. Novel technologies from the fields of AR and VR are to be used to provide efficient communication channels.

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