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How can design help the technology transfer process of new bioinspired materials?

“It is a long way from basic research to product design. Innventias role in Biomime is to find new possible use for the fibers, and industrial design can be a way to go. We collaborate a lot with the forest industry, but also with architecture firms and designers. With design, the new materials can get a characteristic identity, and it is an exciting way to market new fiber materials and their possible applications. For new materials there is often no real buyer, instead it is all about technology push. If we aim for new materials that can replace existing materials, the price and performance is already set. We need to be better and cheaper to be able to take market shares. However, if we can create something that is new and designed, and at the same time uses the unique properties in our materials, these materials can be introduced on the market with a new identity and it will be possible to get a higher price.”

You are a natural scientist who teaches at Konstfack, what have you learnt from the design students and vice versa?

“Designers love new materials, and they want to be the first using them. Often the designers are interested in different pro-

erties than the material scientists are. I teach a course in renewable materials for master students in textile, industrial and interior design at Konstfack. The students work with new biomaterials in our laboratory at Innventia, and have shown their bioinspired products at the annual furniture and design fair in Milano. The designers get a feeling for new materials and how they are developed at the same time as the researchers get feedback on the material properties that are of interest for the market. A common language is developed and perceived material properties, like naturalness, tactile properties and quality, becomes as important as the traditional mechanical properties like stiffness and strength.”

Innventia AB is a world leader in research and development relating to pulp, paper, graphic media, packaging and biorefining. The company translates research into innovative products and processes that generates enhanced value for the industry partners. The role of Innventia in Biomime is to make sure that the new fiber properties that come out of research are of industrial relevance, and to develop methods to analyse relevant fiber properties.