

# Preface

The ever-increasing complexity of today's world poses equally daunting challenges for all kind of organizations in business and society. These challenges can range from fast changing and growing customer demands, with increased pressure on companies to innovate, to fundamental social problems, such as securing a water supply in third world countries. All of these issues have one thing in common: in order to come up with innovative solutions, we need a fundamental shift in the way we address problems and approach challenges.

In recent years, many people and organizations have discovered the innovative power of Design Thinking. This method combines users' perspectives, technological feasibility, and business perspectives to work out innovative solutions beyond the typical expectation. And it works—as I witness myself in everyday life.

Finding out how and why Design Thinking works and systematically assessing it as an innovation approach is the intention behind the HPI-Stanford Design Thinking Research Program (DTRP). The DTRP was started in 2008 as a joint venture between Stanford University in Palo Alto, California, USA, and the Hasso Plattner Institute for Software Systems Engineering in Potsdam, Germany, and allows multidisciplinary research teams to investigate existing frameworks, tools, systems, and successful practice methods, while at the same time creating new ones. The aim is to scientifically understand basics and principles of Design Thinking, why and how this method works and also the reasons when it doesn't. In this new volume of the Springer-series “Understanding Innovation,” the research teams' findings—the result of the fifth program year—have again been compiled in order to share the latest scientific insights with the interested public.

The researchers themselves are endowed with diverse backgrounds in fields, such as engineering, neurology, social science, or economics. They study topics dealing with the complex interaction between Design Thinking team members, creativity building and data handling, as well as conducting long-term field studies in real business environments.

Design Thinking starts at a point that too often tends to be forgotten or ignored: the genuine understanding of users and their expectations. Thus, the core strength of this method is that it offers space to explore and discover user insights. By

developing strong empathy through interviews and observations, the real needs of the clients are revealed. These can then be addressed to come up with innovative and desirable ideas, which are subsequently prototyped and tested in iterative circles. Design Thinking provides the framework, tools, and mind-set to create breakthrough ideas, inspired by a deep understanding of the user's needs. All that's required is an open mind.

Design Thinking has the power to transform the way we work by transforming the way we think, approach problems, and develop products and services or even processes and strategies. Ultimately, Design Thinking has the power to transform a whole organization and make it sustainably innovative and fit for the future. It is my hope and belief that through the findings of our Design Thinking Research Program we can contribute to a better understanding of this method's functioning—and its further dissemination in companies and society.

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