This thesis is about a research journey about how design and business can contribute to the transition toward sustainable development. Driven by curiosity and personal motivation, I have been working on several projects, engaging with this subject in different ways: as a designer, entrepreneur, innovation consultant, and academic researcher. Sometimes the boundary between these roles was blurred, which was challenging but at the same time gave me the opportunity to develop and refine theoretical ideas while remaining with my feet grounded into practice. Accordingly, this thesis is structured into five chapters. Each chapter opens with a personal story. Hoping to make these stories interesting and accessible for a broad audience, I use a simple language, free from academic complexity. Each story is then followed by a peer-reviewed scientific publication. The main message that emerges across the five publication is that design is a rational and creative process that allows multiple organizations to collaboratively develop, within a policy landscape, new products and services for solving sustainable development problems. In particular, organizations can do so by gradually framing these problems in new ways, envisioning potential solutions, co-creating them and then trying out if it works in practice using prototypes.

For example, in order to prevent resource depletion, policy makers in Europe decided to ban single-use plastic plates and cutlery. A company selling plates may frame this regulation as a market opportunity and envision a supplementary dishwashing service for large events, such as fairs, public holidays or music festivals. This potential solution would allow the company to expand its offering and create economic value. At the same time it may help reducing plastic waste and related environmental issues, such as poisoning our drinking water or choking a wandering albatross in the middle of the Pacific. However, realizing the solution requires the interaction of many organizations and stakeholders. Cross-organizational collaboration is crucial: to establish a commercial agreement between the plate company and the supplier of a material for the plates, which must be cheap yet durable enough to withstand heavy use; to get the local government's approval around safety and hygiene standards; to convince street food sellers, or possibly people buying food, to pay extra for the service; and so on. In this way, the original idea of the plate company evolves, and it is gradually co-created. Throughout this iterative process, prototyping is essential to keep implementing, testing and adjusting new versions of the plates and supplementary service, until things can finally work out well for all the parties involved.

The theoretical contribution of the thesis lies in advancing knowledge within and across three filed academic research: sustainable design research; sustainable business innovation research; design management research. On the other hand, the practical contribution relates to its implications for designers, business managers and, to a more limited extent, for policy makers. The main implication for designers wanting to play a role as change agents in the transition toward sustainable development is that they need to: become available to work in more strategic positions dealing with business and policy issues; learn to think from different perspectives and to talk multiple "disciplinary languages" for communicating with managers and policy makers; learn new activities and act more entrepreneurially; be aware that while doing all of this, they will be constantly challenged by other professionals to legitimate themselves. The main implication for business managers is that they should: collaborate externally with other organizations, entrepreneurs, policy makers and academic institutions that have relevant knowledge about sustainable innovation; hire designers, and empower them to work in strategic roles as a way to find a balance between what people need, what is technically achievable, what is economically possible, as well as what is ethically acceptable for society and the environment. Finally, the main suggestion to policy makers is leveraging design expertise and skills as well, in order to foster a more responsive policy making process, which is needed to keep up with a fast-evolving reality.