

## **Designing organizations for innovation in transitioning domains**

Madis Talmar, MA

Defense time: 14<sup>th</sup> May at 11.00 Senaatzaal, TU/e

Promotors: Georges Romme (TU/e), Jan Holmström (Aalto University)

Co-promotors: Bob Walrave (TU/e), Ksenia Podoyntsyna (JADS)

### **Abstract**

Operating in so-called socio-technical transitions sets high requirements to organizations. In the course of a transition, which typically spans several decades, existing organizations, products, services and business models are structurally challenged, while opportunities for more sustainable new technologies, products, services, business models and organizations emerge. Survival and success in transitioning domains thus inherently depends on the ability of organizations to adapt to changing conditions and to continuously innovate; that is, to renew their product and service portfolios, business models and organizational structures. Against this background, this dissertation investigates the topic of organization design for innovation in transitioning domains. The central question of the dissertation is: How to design organizations that succeed at innovation in transitioning domains? The dissertation tackles the central research question from the viewpoint of three distinct organizational profiles, each having a key role in transitioning domains: ventures, incumbents and systemic intermediaries.

In study one, we theoretically develop design propositions regarding the strategies of ventures pioneering path-breaking innovation in orchestrating an innovation network toward higher socio-technical acceptance of the product-service (system) commonly achieved by that network. In study two, we perform a systematic literature search and synthesis to develop design principles for building an organizational system for major innovation in incumbent firms. We proceed by contextualizing the resulting general framework of several hundred interlinked design principles toward a design solution specifically for power utility firms. In study three, in a qualitative longitudinal case study, we study the evolution of a systemic intermediary organization with regard to their transition-support activities. From the case study, we distill a design solution for dynamically managing and governing the activities of systemic intermediaries. Finally, study four distinguishes from the other studies in that we develop a design theory that encompasses a method for mapping, designing and analyzing (i.e., modeling) innovation ecosystems, regardless of the organizational profile performing these activities. As such, the fourth study targets a methodological contribution to organization design to fulfill a practical, as well as a scholarly need for analytical tools on innovation ecosystems.

Overall, the dissertation makes three main contributions. First, it contributes to transition studies by building the foundations for, and demonstrating the relevance of organization design as a distinct area of inquiry within transition studies. Second, we build the foundation for considering one type of networked organization: the innovation ecosystem (within the structuralist perspective) as an object of design. Third, we carry over from management information systems research to organization and innovation studies the concept of design theory as an integrated boundary object.