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Business Model Migration: A Process Model - the case of solar energy deployment

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During the last decade, the installed global capacity for solar energy generation has increased at an exponential rate, now exceeding 130 GW (IEA, 2014). The initial deployment of the technology has been dependent on various financial supporting schemes, but as prices of photovoltaic systems are falling, solar energy is reaching grid parity in an increasing number of countries (IEA, 2013). However, this does not mean that solar energy is commercially competitive, since market demand is prevented by upfront costs, uncertain policies and anticipated hassle. Evidently, a well-developed and Sustainable technology per se is not enough for it to be accepted on the broader market (e.g. Kley, 2011), and to develop a viable business model is considered a crucial link between a sustainable technology and the marketplace (e.g. Boons and Lüdeke-Freund, 2013). On leading markets, business models for solar energy have shown potential to bring solar energy technology to the market (Wadin and Ahlgren, 2015), and thereby support the transition towards a renewable energy society. In California, for example, companies offering residential solar energy have developed sophisticated Business models, including highly standardized and effective sales processes and structured financial set-ups. By adopting the business model for car leasing, it became possible for residential customers to “go solar” without any down payment, increasing the number of potential customers dramatically. Currently, this business model is being transferred to European markets, where upfront purchases of systems have been dominating for many years. The internationalization and globalization of industries today, allow almost any company to establish on a new market, thus transferring an existing business model to a new context and implementing it there. However, this requires the business model to adapt, to a lesser or larger extent, to new circumstances. Scholars have acknowledged the need for business models to adapt in principle (e.g. Chesbrough, 2010), especially to sustain the long-term success of a firm on a market (Sosna et al., 2010; Teece, 2010). Moreover, there is research covering important aspects of business model adaption, e.g. organizational teaching (Sosna et al., 2010), organizational attractiveness (Bohman, 2010) and dynamic capabilities (Teece, 2010). However, little research has been performed on the overarching process of how business models are transferred and adapted to fit new market circumstances (Baden-Fuller and Haefliger, 2013; Mason and Spring, 2011). The purpose of this paper is to develop a process model, illustrating how the Californian business model for solar energy deployment is transferred and adapted to new markets (the Dutch and German market). This will increase the overall understanding of how business models adapt to new market circumstances and provide a more comprehensive picture of the business model migration process. It further contributes to a working definition, which could be improved and applied when studying business model adaption on other markets, in other industries, or when transferring a business model between industries. Among practitioners, this study contributes to a deeper understanding of how solar energy is developing as an alternative to traditional energy production, distribution and consumption.