

## Innovation SIG Track 36

### 36.2. The Power of Open Innovation in High-Technology Industries

#### Sub-Track Chairs:

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#### Introduction:

One of the key ways that organizations can develop enhanced products and services in a volatile and rapidly changing global market is through open innovation. Open innovation has become an important



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competence for firms to overcome the challenges of today's innovation landscape. Different researches indicated that the high-technology firms have experienced phenomenal growth in the last decade (Bruton and Rubanik, 2002).

Accordingly, we encourage conceptual and empirical contributions from a wide range of social science disciplines dealing with the following topics and challenges (the list is non-exhaustive):

1. **Context: High-Tech Industry.** Many interesting and important open innovation activities in the high-technology industry are complex and/or originate within the adopting organization. Some of these firms have achieved world-class status through open innovation. Thus, how does a high technology firm develop open innovation? How does a technology help to facilitate open innovation? Are there dynamic externalities from open innovation? Could increased adoption of open innovation generate positive externalities or spillovers, enhancing innovation productivity at the high technology firms?
2. **Partnership.** Open innovation can be regarded as an ongoing strategic technology decision process as responds to changes in the environment (Bianchi et al., 2011). An increasing number of firms (e.g. Merck, HP, Siemens AG) have recognized the need for a more outward facing approach to innovation and leveraged external innovation and networks to achieve and sustain a competitive advantage. It is a capability in which firms realize from customers, retailers, suppliers and other external stakeholders through technology in-licensing, acquisition or joint development, and also it is a firm's capability to commercialize (part of) the firm's technology through brand-out, licensing and so on. Thus, when and under what conditions should firms initiate open innovation partnerships? What collaboration skills are necessary for managing open innovation partnerships? How might co-creation with different stakeholders (i.e. customers, retailers, suppliers, competitors, and others) create superior customer value? How does a firm implement open innovation and build a good open innovation network? What collaboration skills are necessary for managing open innovation partnerships?
3. **Knowledge and Capabilities.** Open innovation not only involves simultaneous internal and external knowledge management processes, but also inter-organizational relationships, which can be viewed as knowledge repositories of firms. Firms need to develop a better understanding of open innovation processes to achieve benefits. A network of external linkages serves as a locus of innovation because it provides timely access to knowledge and resources that are otherwise unavailable (Powell, Koput, and Smith- Doerr, 1996). Thus, how synergies are created by combining inbound and outbound innovations? How should organizational culture and structure be developed to successfully manage open innovation? What are firms' skills, resources, and capabilities necessary for a successful open innovation?