



The Oxford Handbook of Innovation

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Introduction to Part III

THE existence and significance of differences across industry and over time in the structure and organization of the innovation process has been a central topic in the literature on innovation. A well-known distinction in many discussions of innovation processes is between so-called “Schumpeter Mark I” industries, characterized by numerous small, entrepreneur-led firms, and “Schumpeter Mark II” industries, which are dominated by large, oligopolistic firms with extensive organized R&D. As Bruland and Mowery point out in Chapter 13, however, such differences are the results of lengthy processes of historical change and depend on both technological and institutional factors. Malerba, in Chapter 14, extends this analysis to a sample of contemporary “high-tech” industries, and shows how differences in innovation and industrial dynamics may be analyzed as the interplay within different “sectoral innovation systems” among technology, actors and institutions. Chapter 15 by von Tunzelman and Acha, in contrast, look at so-called “low-tech” and “medium-tech” industries, which are often assumed to be less innovative than their “high-tech” counterparts. The authors, however, emphasize that innovation (often involving different processes) is pervasive within these sectors as well. Similar findings are reported by Miles in Chapter 16, which surveys the rapidly expanding literature on innovation in services. Hall, in Chapter 17, discusses the diffusion of technology, which is closely related to innovation, and underpins the pervasiveness of innovation throughout the economy.