Public Policy Implications
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This chapter focuses on the inadequacies of traditional public policy principles and tools in grasping the challenges of knowledge formation in communities. It explores how national science and technology policies might respond to the idea of learning as a distributed, non-cognitive, practice-based phenomenon, recognizing that distributed organizational networks are both learning and governance environments in their own right. The chapter begins by reconceptualizing the role of classical instruments of public policy intervention, by focusing on the example of patents as a means of supporting the production of knowledge in expert communities. It then discusses the policy implications of focusing on the architecture of interactions between expert communities and lay communities, a key aspect of knowledge formation in the contemporary economy of complex and distributed knowledge.

Bridging Scientists and Informal R&D Collaborations
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This chapter distinguishes between formal and informal R&D collaborations and explores the extent to which a firm’s informal collaborations shape knowledge integration and, consequently, the firm’s patent performance. The chapter further examines how the firm’s boundary spanning scientists influence the relationship between informal collaborations and patent performance. Data pertaining to 222
biotechnology firms shows that informal collaborations with universities have a significant positive effect on patent performance. However, informal collaborations with other firms are detrimental to patent performance. A firm’s ‘Pasteur bridging scientists’—who are identified as being capable of bridging scientific and technology domains—not only enhance the patent related benefits from informal collaborations with universities, but also diminish the negative effect of informal firm collaborations with other firms on patent performance. This research suggests that the interdependency between internal and external boundary-spanning activities have important implications for firms that attempt to integrate knowledge across boundaries.