
Contents

Introduction	ix
Chapter 1. The Process of Institutionalization of Innovation and Production Ecosystems	1
1.1. Technologies, rules and learning dynamics.	2
1.1.1. Structure and mechanism of an ecosystem	7
1.1.2. Economic behaviors and social relationships	10
1.2. Innovation and production ecosystems and globalization	16
1.2.1. Locations, sources of skills.	17
1.2.2. Long-term decisions.	18
1.2.3. Basic research and development of products	23
1.2.4. Innovation and production ecosystems and the choice of location	26
1.3. Synthesis	27
1.4. Conclusion.	34
Chapter 2. The Problems Raised by the Analysis of Innovation and Production Ecosystems	37
2.1. Justifying public intervention.	38
2.2. Innovation and production ecosystems and open innovation	43

2.3. Industrial structures	46
2.4. Conclusion	48
Chapter 3. American Innovation and Production Ecosystems.	51
3.1. Characteristics of American innovation and production ecosystems	52
3.1.1. An environment which fosters innovation.	52
3.1.2. Solid foundations	54
3.2. Biotechnology clusters	59
3.2.1. The network effect	63
3.2.2. High growth rates in clusters with heterogeneous populations	66
3.2.3. Clusters and the development of market effects	67
3.3. Conclusion	69
Chapter 4. Competitiveness Poles	73
4.1. Why develop competitiveness poles?.	73
4.2. Competitiveness poles and the legacy of <i>systèmes productifs locaux</i> (SPL)	76
4.3. Analyzing	77
4.4. Conclusion	84
Chapter 5. European Innovation and Production Ecosystems.	87
5.1. The cluster analysis framework	88
5.1.1. Clusters: a reality more than a concept	88
5.1.2. Toward a generalized ecosystem of innovation	95
5.2. The Cambridge science and technology cluster.	98
5.2.1. Knowledge-intensive services and innovation	100
5.2.2. The Cambridge cluster: structure and development	104

5.3. The foundations of cluster policy	109
5.3.1. Content and contribution of cluster policies	109
5.3.2. A new approach based on the smart specialization strategy	112
5.4. Conclusion	120
Conclusion	123
Bibliography	129
Index	141