

<i>List of figures</i>	vii
<i>List of tables</i>	viii
<i>Contributors</i>	x
<i>Preface</i>	xiii
1 Rediscovering the social in the economics of interfirm relations <i>Gernot Grabher</i>	1
<b>Part I Understanding networks: actors, resources, and processes in interfirm cooperation</b>	33
2 The network as a governance structure: interfirm cooperation beyond markets and hierarchies <i>Håkan Håkansson and Jan Johanson</i>	35
3 Explaining interfirm cooperation and innovation: limits of the transaction-cost approach <i>Bengt-Åke Lundvall</i>	52
<b>Part II High-technology networks: horizontal interfirm cooperation and strategic alliances</b>	65
4 Knowledge in the network and the network as knowledge: the structuring of new industries <i>Bruce Kogut, Weijian Shan, and Gordon Walker</i>	67
5 Organizational perspectives of strategic alliances: external growth in the computer industry <i>Mario Benassi</i>	95
6 Strategic technology alliances and modes of cooperation in high-technology industries <i>John Hagedoorn</i>	116

<b>Part III Supplier networks: vertical interfirm cooperation and disaggregation of large firms</b>	139
7 An exit-voice analysis of supplier relations: the case of the US automobile industry <i>Susan Helper</i>	141
8 Small firms and outsourcing as flexibility reservoirs of large firms <i>Klaus Semlinger</i>	161
9 Decentralization and privatization in Hungary: towards supplier networks? <i>László Neumann</i>	179
<b>Part IV Regional networks: multidimensional interfirm cooperation in industrial districts</b>	201
10 Factory or putting-out? Knitting networks in Modena <i>Mark Lazerson</i>	203
11 Power and the redefinition of industrial districts: the case of Baden-Württemberg <i>Gary B. Herrigel</i>	227
<b>Part V Limits of networks: problems with embeddedness</b>	253
12 The weakness of strong ties: the lock-in of regional development in the Ruhr area <i>Gernot Grabher</i>	255
13 The globalization of the economy: an erosion of regional networks? <i>Ash Amin</i>	278
<i>Index</i>	296

# Figures

2.1	Relations between actors and activities/resources	36
2.2	Circular causal relation between exchange relation and activity interdependencies	40
2.3	Classification of governance structures	45
4.1	Alliance by US semiconductor start-ups	87
4.2	Alliance by US biotechnology start-ups	88
5.1	Joint-venture activities – parent–child relation	98
5.2	Nonequity agreements by relevance degree	99
5.3	Three levels of analysis	103
6.1	Distribution of strategic technology alliances in core technologies, 1980–9 (in percentages)	119
6.2	Growth in the number of newly established strategic technology alliances in core technologies and in total, 1980–9	121
6.3	Distribution of modes of strategic technology alliances in core technologies and in total, 1980–9 (in percentages)	131
7.1	Dimensions of supplier relations	146
7.2	Use of computer numerically controlled (CNC) machine tools	148
12.1	Development of the machine-building and steel construction industries, 1970–85 (index of production output)	258
12.2	Development of world crude steel production, 1945–85	262
12.3	Profile of suppliers of environmental technology in North Rhine-Westphalia	270

# Tables

4.1	Selected established companies' alliance shares in the semiconductor industry (in percentages)	73
4.2	Variations in country networks	78
4.3	Sources of flexibility	82
4.4	Alliance type by semiconductor start-ups	86
4.5	Alliance type by biotechnology start-ups	86
5.1	Case studies	97
6.1	The companies with the largest number of strategic technology alliances, 1980-4 and 1985-9	125
6.2	The leading companies according to strategic technology alliances in information technologies, biotechnology, and new materials	126
6.3	A comparison of network density in core technologies (for the 45 firms with the most strategic technology relations)	127
6.4	The assumed relation between modes of strategic technology alliances and their strategic content	128
6.5	A classification of modes of strategic technology alliances and their organizational interdependence	129
6.6	The growth of different modes of strategic technology alliances, 1985-9 (1980-4 = 1.00)	130
10.1	Number of knitwear firms in the province of Modena by number of employees and principal phases of production	207
10.2	Twenty-year change in distribution of Modena firms by workforce size	209
10.3	Typical sequence in knitwear production	210
12.1	Shares of central divisions in total sales of the five most important steel enterprises in western Germany (in percentages)	267
12.2	Structure of orders in plant engineering (shares in total volume of orders)	271

13.1 National, community, and international mergers (including acquisition of majority holdings) in the European Community	286
13.2 EC mergers by size (combined sales) of firms involved	287
13.3 Evolution of concentration in EC industry: shares of largest firms in total turnover and employment (in percentages)	287
13.4 Foreign involvement in manufacturing in selected European countries (in percentages)	288