Index

absorptive capacity 68, 89–90, 108, 186, 312, 317, 319
academic partners, identification of 185
actors, software industry 195–8, 201–9
ad hoc innovation 198, 205
ad hoc partnerships 185, 186
adaptive learning 169, 171, 251
administrative framework, competitive clusters 281–2
advanced aggregator (AA) model 105–6, 123, 125–8
advantages, regional embeddedness 36–54
agent-based simulation with SKIN agents 148–9
experiments 156–8
learning and cooperating 151–4
market 149–51
MNC agents 155
new indicators 156
results of experiments 158–61
start-ups 155
agro-food clusters 112, 117–19
agrochemical industry, technological capability 172–88
Ahrweiler, P. 141, 155
Ahuja, G. 80, 99
Albert, M. 277
Alexander, J. 79
Almeida, P. 2, 29, 70, 142
Alvarez, A.S. 4
Amin, A. 331
Ammon, G. 277
analytical knowledge base 82–3
Andersen, P.H. 225
Andersson, U. 2, 11, 12, 13, 29, 33, 72
Archibugi, D. 313
Argyris, C. 151–2
Arundel, A. 316
Arvidsson, N. 68
Asea Brown Boveri (ABB) 115, 116, 121
Asheim, B. 9, 79, 81, 84, 108, 147, 195, 223, 272, 331
Audretsch, D. 62, 108
augmentative embeddedness 40, 46–52, 55
Aumayr, C.M. 228
Austria, role of MNCs 313, 317–23
Autio, E. 35
automobile industry
CEE countries 300–306
cluster–MNC interaction 122–5
embeddedness 44–6, 49–52, 53
insider–outsider problem 71
technological capability 172–88
territorial knowledge dynamics 207–9
autonomy 12, 20, 34, 59, 72, 154, 209, 212, 214–16, 297–8
Backhaus, K. 230
Baden-Württemberg
mechanical engineering industry 174
software industry 200–201
Barmeyer, C. 276, 277, 278, 279
Barrios, S. 313
Barthet, M.-F. 279, 280
Basel area, regional engagement patterns 252–9, 265, 266
‘basic’ industrialization 297, 398–300, 303
Bathelt, H. 35, 78, 222, 249, 272, 331
Beamish, P.W. 78
Beatson, M. 279
Becher, G. 250
Becker-Ritterspach, F. 31
Beckert, J. 4, 33
Belgium, role of MNCs 313, 317–23
Innovation and institutional embeddedness of MNCs

Bellak, C. 316, 321
Benko, G. 278
Berger, P.L. 274
Berndt, C. 250
Bettencourt, L.A. 201
‘big shift’ theory 110–12, 115–17, 119–21, 123, 134, 135
bioethanol cluster and market, Sweden 113–15
biopharmaceuticals industry 119–22
Birkinshaw, J. 2, 12, 59, 69, 81, 87
Björkman, I. 80
Blanc, H. 80
Bocquet, R. 281
Boeckler, M. 250
Boekholt, P. 36
Bohle, D. 298
Bolton, G.E. 153
book structure 17–22
Boschma, R.A. 9, 33, 108, 211, 334
down-up initiatives 127, 279, 280, 282, 284
ded-up knowledge flows 179–81
Bouquet, C. 12
Bourdieu, P. 148, 276
Boyer, R. 5, 6
Braczyk, H.-J. 108
Brandenburg, regional engagement patterns 252–9, 265, 266
Breschi, S. 223
bridging institutions 32, 33, 39, 50
Broby College of Cross Media 129, 130–31, 132–3, 135
Bruehe, G. 193, 312
Bruinsma, F. 110
Bruzst, L. 316
Buckley, P.J. 11, 13, 224
Bunnell, T.G. 224, 243
business associations 17, 32, 35, 36, 39, 144, 285
business benefits, regional engagement 259–63
business milieu, strengthening 260
business networks 11–12, 13–14
business R&D, Ireland 143–4
Cairncross, F. 61
Camagni, R. 260
Cambridge, electronics/life sciences industries 175
Canada, Ontario auto-parts cluster 124–5
Cantwell, J. 4, 29, 34, 37, 60, 70, 108, 109, 183, 222, 224, 225, 227, 312, 313
capability building human resources 176–8
innovation networks 183–6
R&D organization 179–81
capital stock functions agent-based simulation 148–56
empirical evidence for simulation findings 161–4
experiments 156–8
importance of 145–8
MNCs 142–3
results of experiments 158–61
capital-intensive industries 298–300, 302
Carlsson, B. 223, 312
Caryannis, E. 79
Cassiman, B. 86
Casson, M.C. 11, 13, 224
Cefis, E. 86
centers of excellence status 59, 60, 69, 170, 196
Central and Eastern Europe emerging forms of inter-firm coordination 302–6
from low-wage location to high value-added manufacturing 300–302
leading sectors and comparative institutional advantage 297–300
Central Italian districts 9, 37
centralized coordination, France 274–5
centrally planned economy, transfer from 314–17
chambers of commerce 21, 32, 35, 39, 182, 305–6, 307, 335
change management 266–7
Charnitzki, D. 144
Chesbrough, H.W. 32, 107
Chesnais, F. 278
China IT industry 72–3
R&D investments 193–4, 312
Chini, T.C. 142
Chobanova, Y. 317, 321
Index

Christensen, P.R. 225
Clark, E. 12
closed innovation system 315
cluster analysis
discriminant analysis 255–7
industry-driven innovation centres 234–5
knowledge generation and innovation hubs 232–3
lagging regions 233
matching clusters with location of MNCs 236–41
public- and service-driven innovation centres 234
results of 231
cluster–MNC interaction models 122–34
clusters
increased role of 61–4
innovating emanating from 64–73
MNCs as motors within 286–8
MNCs dependent on 129–34
Coase, R.H. 249
codified knowledge 82, 83–4, 85, 99, 122
Coe, N.M. 77, 224, 243, 251
Cogan, J. 143, 144, 146
cognitive distance/proximity 3, 15, 198, 211, 216
Cohen, E. 278, 279
Cohen, W. 312
Cohendet, P. 205
Colbertist model 277–8, 279
Coleman, J.F. 250
collaboration types, Ireland 145–6, 147, 162, 163
collective action problems 21, 297, 303–6
collective goods production
emerging forms of inter-firm coordination 302–6
from low-wage location to high value-added manufacturing 300–302
leading sectors and comparative institutional advantage 297–300
Colletis, G. 276
common knowledge 197–8, 211
common rules 32
company age, engagement by 255
company characteristics, France 273–7
company size, engagement by 256
company type, effects on regional engagement 253–7
company-level capability building
human resources 176–8
innovation networks 183–6
R&D organization 179–81
company-level training 303–5
competition by imitation 155
competitive advantage 9, 14, 18, 64, 108, 134, 213, 315
and leading sectors 297–300
competitiveness clusters (pôles de compétitivité)
administrative framework and first effects 281–2
case studies 283–8
filling gap between local and global knowledge 279–81
outlook for 288–90
‘complex’ industrialization, 297, 298–302, 303
constructed embeddedness 251
case studies 252–9
and creation of regional advantages 263–7
motivations, expectations and strategies 259–63
contextual knowledge 79, 142, 205, 213
continuous collaboration, support for 183, 185, 186, 188
Cooke, P. 8, 9, 31, 106, 108, 110, 111, 119, 120, 172, 195, 223, 272, 278, 282, 335
coordinated market economies (CMEs) 6, 295
coordination capacity 295–7, 304–8
coordination problems 3, 6, 8, 14, 15, 16, 307–8, 329
international business studies approach 33–5
regional studies approach 35–6
core business benefits, regional engagement 259–63
core networks 71
Corporate culture and regional embeddedness (CURE) project 249, 252–9, 264–7
corporate universities 50, 177–8
Cosh, A. 182
‘cost-driven outsourcing firms’ 20, 203, 204, 205–9, 210, 212
Costa, I. 311
Cotic-Svetina, A. 78
Crevoisier, O. 106
cross-fertilization 38, 85–6, 108, 117, 118, 135
Crouch, C. 330
‘crowding-out’/‘crowding-in’ effects 22, 313, 319
Culpepper, P. 295
cultural approach, conceptual framework 273–4
cultural environment 226, 228
‘customer domain knowledge’ 214–15, 217–18
customer-driven innovation 107, 109, 111
customer-focussed innovation 121–2
customers, as trigger for knowledge creation 199–209
‘customized solution providers’ 20, 203, 204, 205, 210, 211
Czarnitzki, D. 86
Czech Republic
export industries 299–300, 302–6
role of MNCs 313, 317–23
d’Iribarne, P. 273, 274, 275, 286
Damijan, J. 319
Danish Vaxtfonden 127–8
Dankbaar, B. 253, 254
Darmon, D. 279, 280, 281
Davel, E. 273
De Geus, A. 152
de Meyer, A. 67
de-territorialization 250–51
Defélix, C. 282
Defever, F. 241, 243
Dehoff, K. 312
demand-driven innovation 107, 110, 111, 113–15, 121, 128, 321, 324
Denmark
renewable energy cluster 125–8
role of MNCs 313, 317–23
design-driven innovation 107, 109, 110, 115–17, 121, 122, 125–9, 134, 135
deutero learning 152, 154
developmental impact, FDI 319–20
Dewey, J. 151
Dicken, P. 333
differentiated knowledge bases 81–4
DiMaggio, P.J. 274, 336
disembeddedness, dilemma with embeddedness 16
distributed networks and proximity 84–6
diversification 5–6, 18, 29, 106, 107–8, 128, 224
Djankov, S. 317
Djellal, F. 198
Doloreux, D. 198, 201, 205
donating activities 49, 178–9, 186, 259–60, 263
Doremus, P. 79
Dörhöfer, S. 267
Döring, T. 79
Dosi, G. 109, 110, 111, 213
double-loop learning 152, 153
Doz, Y. 81, 142
Duguid, P. 110
Dunning, J.H. 2, 11, 13, 29, 34, 70, 142, 224, 271, 311, 312, 321, 323
dynamic process, embeddedness as 337–40
East Westphalia–Lippe, regional engagement patterns 252–9, 262, 266
Ebersberger, B. 80, 81, 91, 96, 98
e-co-innovation 106, 107, 109–10, 112, 119
economic conditions, effects on embeddedness 252, 253–4, 264
economic geography 35, 102–12, 224, 226, 243, 272
economic subsystems, interaction with 31–3
Edler, J. 225
Edquist, C. 5, 7, 9, 171, 223, 271, 330
education system, France 276–7
efficiency-seeking strategies 63–73
Eisenhardt, K.M. 213
Elías, N. 273, 275
elitism 175, 276–7, 278–9, 288
embeddedness
dilemma with disembeddedness 16
dilemmas of 330–32
external construction of 332–4
multinational companies 10–14, 319–20
organizational perspective 33–5
in regional networks and institutions 8–10, 15
regional perspective 35–6
social and political constriction of 335–7
as strategic, dynamic and dilemmatic process of skilled social actors 337–40
structural and relational concepts 3–6
towards an integrated perspective 14–17
via national institutions 5–8
emerging economies 312, 321
employee recruitment 42, 50, 120–22, 173, 178, 179, 300, 304
employee up-skilling 176–7
endogenous coordination 21, 296–7, 307–8
engineering-based (synthetic) knowledge 81–2, 83–4
Enright, M.J. 36, 37, 225, 334
entrepreneurial regional innovation (ERIS) system 117, 119, 120, 121
Escribano, A. 333
Estonia, role of MNCs 313, 317–23
Etanolteknik (Etek) 113–14
European Commission, framework programmes 316
European Metropolitan Regions 48
European regions, MNC presence cluster analysis 230–36
matching clusters with location of MNCs 236–41
methodological approach 227–30
European Union (EU)
Industrial R&D Investment Scoreboard 228, 243
lobbying 127–8
see also new member states, EU
Eurostat regional statistical database 227–8
evolutionary economic geography 107–12
exit 161, 306–7, 313
experience-based learning 4, 9, 19, 32–3, 35, 83–4, 85, 149, 151–4, 214
experimental regionalism 48–9
exploitative embeddedness 30, 38–40, 41–6, 52–5, 332, 336
export industries, CEE countries 298–308
export profile, CEE countries 300–302
external capability building
human resources 178–9
innovation networks 187–8
R&D organization 181–3
external construction of embeddedness 332–4
external embeddedness 12, 34
Fagerberg, J. 271
family companies 254
Farrell, H. 330
feedback learning 151–2, 199, 262
Feldman, M. 62, 108
Feldmann, M. 295
Fen Chong, S. 279, 280
Fey, C.F. 87
Filippov, S. 311
Finegold, D. 304
Finland, role of MNCs 313, 317–23
Flexenergie Knowledge-sharing Network 125–8
Fligstein, N. 5, 32
Fontana, R. 316
‘footloose’ companies 222–3, 225–7, 243, 244, 250, 261, 264, 302–3
foreign direct investment (FDI)
functional structure of 321–3
overdependence on 323
formal institutions 3–4, 7, 9–10, 12, 50
formal networks 262, 265
formal rules 13, 14, 39, 44–6, 53
Forsgren, M. 11–12, 13, 34, 78
Foss, N.J. 68, 143
Fourasrié, J. 278
France
institutions and companies 273–7
poles de compétitivité 283–90
research and innovation policy 277–82
role of MNCs 313, 317–23
Freeman, C. 110, 171, 223
Frenken, K. 79, 98, 108
Frenz, M. 78
Frost, T.S. 143, 195, 213
functional dimension, ODIP 196–8, 204
future orientation
clusters 133–4
shared frameworks 264–5
Gallouj, F. 201, 205
Gärtner, S. 259, 262
Garud, R. 336–7
Gassmann, O. 225
Gauchon, P. 274
GE Healthcare 112, 119, 121, 122
Geels, F. 110
Geenhuizen, M. van 224
Genostar 154
Geppert, M. 12, 13, 79
Gereffi, G. 77
German software industry
empirical results 201–17
research methodology 200–201
German-based MNCs, embeddedness 41–54
Germany, capabilities and regional embeddedness
case study results 176–88
regional location of MNEs 174–6
Germany, role of MNCs 313, 317–23
Gertler, M.S. 78, 79, 84, 108, 195, 211, 223, 224
Gerybadze, A. 29, 67, 142
Geuna, A. 316
Ghoshal, S. 2, 11, 13, 31, 34, 67, 79, 80, 271, 330, 331, 332, 334
Giddens, A. 4
Gilbert, N. 147, 148, 151, 152
Gingerich, D. 6, 296
Girma, S. 313
global cities 242
global innovation networks 18, 79, 81, 87, 93, 258, 312
global innovation process (transnational solution) 64–73
global knowledge, filling gap between local knowledge and 279–81
global networks 29, 169, 170, 224–5, 243–5, 250–51, 331
integration into 317
global production networks (GPNs) 195
global value chains (GVCs) 195
globalization
dilemma with localization 13–14, 15–16
and increased role of clusters 61–4
globalization forces 59–61‘glocalization’ 249, 266
Glückler, J. 261
go-it-alone innovation strategies 142, 157–8, 160
Goerzen, A. 78
Görg, H. 79, 312
governance structure 265–6
government
lobbying 127–8
R&D expenditures 229, 233, 234, 235
Govindarajan, V. 80, 142, 165
Grabher, G. 8, 251, 331, 336
graduate recruitment 42, 125, 178, 179, 276–7
‘grand projects’, France 278
Grandes Ecoles, France 276–7, 286
Granovetter, M.S. 4, 14, 32, 262, 334
Granstrand, O. 87
Grant, R. 197
Greece, role of MNCs 314, 317–23
green economy 112, 116, 125, 128, 136
Green, L. 199
greenfield investments 61, 71, 311, 312, 324
Greenway, D. 79
Greskovits, B. 298, 306
Grimshaw, D. 201
Grupp, H. 198
Guimón, J. 311
Günther, J. 317, 321
Gupta, A.K. 80, 142, 165
Gyor, Hungary, regional engagement patterns 252–9, 265, 266
Martin Heidenreich - 9780857934338
Downloaded from Elgar Online at 06/21/2019 05:50:29PM via free access
Index

Hagel, J. 110, 111
Håkanson, L. 142
Hall, P.A. 5, 6, 273, 277, 295, 296, 307
Halme, K. 61
Hampden-Turner, C. 275, 277
Hancké, B. 6, 273, 274, 275, 276, 277, 278, 295, 308, 321
Hanssen, H.K. 89
Hansen, M.T. 99
Hartmann, M. 276
Hauknes, J. 87, 198
Häusler, J. 37
‘headquarters effect’ 80–81
Hedlund, G. 332
Heidenreich, M. 2, 10, 52, 142, 143, 271–2, 273, 330, 331
Heckert, M. 110
Held, D. 2
Helmstädter, E. 260
Henderson, J.V. 79
Herstad, S.J. 78, 79, 80, 81, 91, 96, 98
Hess, M. 32
heterogeneous partners, cooperation of 284–6
hierarchical relations
  France 274–6
  MNCs 31–2, 332
  socialist systems 315–16
high value-added manufacturing, CEE countries 300–302
higher education environment and location 226–30
  cluster analysis 232–4, 235
  discriminant analysis 235–7
  indicators and variables 229
  see also universities
Hipp, C. 198
Hofstede, G. 273, 274, 275
Hollingsworth, J.R. 5, 6
Holm, U. 11, 33, 59, 332
Holmqvist, M. 33
home bases 69–70, 71–3
honour, logic of 275–6, 286–7
Hood, N. 59
horizontal coordination 35, 122–3, 213, 275
host countries, attractiveness of 142–3, 260–61
Huang, C. 78
human resources capabilities
  firm-level 176–8
  firm–region interaction 178–9
methodology and framework of analysis 173
regional importance of 252, 257, 260, 261
Humphrey, J. 195
Hungary
  export industries 299–300, 302–6
  role of MNCs 313, 317–23
Iammarino, S. 29, 108, 171, 183, 313
IBM 72–3
Ietto-Gillies, G. 78
incremental learning 15, 63, 83, 109, 111, 148, 151–3, 146, 157, 337
India
  R&D investments 193–4
  software subsidies 200–201, 210, 213, 215, 216, 218
indigenous innovation, Ireland 143–4
  benefits of MNE presence 158–64
  embedding foreign-owned MNCs 144–8
Industrial Development Agency Ireland (IDA) 143, 144
industrial networks
  identification of industrial partners 184
  knowledge creation and diffusion 184–5
  support for continuous collaboration 185
industrial policy
  broad policies 39, 40–44, 46–9, 54
  France 272, 277–82
  risks for 37–8
  role of 36, 39–54
  targeted policies 30, 38, 39, 40–41, 44–6, 49–52
  transitional countries 315–16, 320–21, 323–5
industrial upgrading, CEE countries 297–300, 317, 323–4
industry environment and MNE location 226–8, 242
  cluster analysis 232, 233, 234–5
  discriminant analysis 235–7
  indicators and variables 229
industry needs, representation of 127–8
industry, regional engagement by 256–7
industry-driven innovation centres 234–5
matching with location of MNCs 236–41
informal institutions 4, 7, 10, 12, 15–16, 317
informal networks 262, 317
informal rules 3, 9, 13, 32, 39, 41–4, 53
information technology (IT) industry 41–4, 53, 72–3
technological capability 172–88
Inglehart, R. 273
Innes, A. 296
innovation hypothesis (IH) 149–51, 153–4
innovation networks capabilities firm-level 183–6
firm–region interaction 187–8
methodology and framework of analysis 174
innovation performance improving 151–4
SMEs compared to MNEs 156–61
‘innovation process managers’ 20, 200, 203, 204, 209, 210, 212
innovation processes in ODIP 195–8
in ODIP of software industry 201–9
innovation system, software industry 198–200
innovation-seeking strategies 64–73
innovation, understandings of 223–7, 271
insider–outsider dilemma 60–61
solving with multi-home-based corporation (MHC) model 71–3
institution building 316
institution-based view 12–14, 34, 225–6
institutional approach, conceptual framework 273–4
institutional characteristics, France 273–7
institutional complementarities 6, 8, 15, 16, 329, 337
institutional provision of resources 36, 39, 46–52, 53, 55
institutional regional innovation (IRIS) system 120
intangible assets (IA) 171, 228–9
integrated supply chain (ISC) model 19, 105, 107, 112, 123–5
inter-firm coordination, emerging forms of 302–8
interactive (user–producer) model 106–7
interactive learning 7, 14, 15–16, 33, 36, 84, 171–2, 271, 312, 317
interdisciplinary projects, management tools for 181, 188
internal capability building human resources 176–8
innovation networks 183–6
R&D organization 179–81
internal embeddedness 12
internalization approaches 11, 13
international business studies 3, 11–12, 17, 30, 31, 33–5, 54
international network scope 87–90
internationalization 3, 8, 14, 77, 98, 131, 135–6, 142–3, 193, 224–5, 312
Inzelt, A. 316
Ireland
business R&D 143–4
dual economy 141–2
embedding foreign-owned MNCs in innovation networks 144–8
empirical evidence for findings 161–4
policy questions experiments 156–8
policy questions results 158–61
role of MNCs 314, 317–23
Isaksen, A. 9, 272
ISO 14000 136
Italy, role of MNCs 313, 317–23
Ito, B. 243
Jacobs, J. 106, 107–8
Jacquet, N. 279, 280, 281
Jaffe, A.B. 62
Janovskaia, A. 301
Japan, packaging industry 130, 133
Jaruzelski, B. 312
Javorcik, B. 319
Johnston, B. 81, 82
Joly, H. 276
Jonsdottir, A. 81
Jordan, G. 199, 206
Index

Jormanainen, I. 315
Jürgens, U. 195
Kaiser, U. 79
Karlstad University 129, 130, 131, 134
Katila, R. 80, 99
Kemp, R. 109–10
Khoury, T.A. 12, 13
Kleinfeld, R. 263
Knell, M. 87
Knight, F.H. 150, 158
knowledge bases
differentiated 81–4
independent variable 90
multinational companies 78–81
proximity and distributed networks 84–6
research conclusions 98–9
research data 86–91
research methodology 91–2
research findings 92–7
knowledge creation/diffusion
industrial networks 184–5
scientific networks 185–6
SMEs compared to MNEs 156–61
knowledge dynamics, role of MNCs 142–3
knowledge flows, modelling 156
knowledge generation and innovation
hubs 232–3, 242
matching with location of MNCs 238–41
knowledge hub functions
agent-based simulation 148–56
empirical evidence for simulation findings 161–4
experiments 156–8
importance of 145–8
MNCs 142–3
results of experiments 158–61
knowledge networks, establishing 184, 185
knowledge paradigms, big shift in 110–12
knowledge production, labour division in 203–9
knowledge spillovers 18, 19, 62, 63, 72, 80, 146
facilitation of 82, 98–9, 108, 185
risks of 36, 37, 227
knowledge transfer structures 181
knowledge-based approach 31, 33
knowledge-intensive business services (KIBS) 229, 232, 233, 235, 242
role in territorial knowledge dynamics 195–200, 201–9
knowledge, re-contextualization of 205, 213, 218
Kogut, B. 33, 142
Konya cluster
diversity and environment 123–4
innovation 124–5
Koschatzky, K. 224, 272
Kostova, T. 34
Krippner, G.R. 4
Kristensen, P.H. 29, 34, 37, 52–3, 225
Krugman, P. 9, 35, 62, 224, 243
labour costs, CEE countries 297, 300–303
labour division, knowledge production 203–9
labour market environment and MNE location 226–30, 242
cluster analysis 232, 233, 234, 235
discriminant analysis 235–6
indicators and variables 229
labour mobility 63, 173, 177, 179, 185, 250–51
labour-intensive industries 298–9, 321
Laestadius, S. 81, 82
lagging regions 233
matching with location of MNCs 236–41
Lall, S. 171, 323
Lam, A. 79
Lamnek, S. 283
Larédö, P. 278
Latvia, role of MNCs 313, 317–23
Laursen, K. 86, 90
Lavigne, M. 317
Le Galès, P. 8, 10, 334
lead markets 63, 116, 261
leading sectors and comparative institutional advantage 297–300
learning and cooperation 151–4
Lesourne, J. 274, 277
Levinthal, D. 312
Levy, J. 278, 295, 296
Lewis, M. 108
Innovation and institutional embeddedness of MNCs

liberal market economies (LMEs) 6, 111, 278, 295
Lichtenberg, F. 79, 96
lifelong learning 177, 229, 231, 232, 233, 234, 235
linear innovation model 106, 110, 315–16
Lithuania, role of MNCs 313, 317–23
‘local buzz’ 35, 36, 39, 89, 99, 222
local collective competition goods (LCCGs) 35–6
exploitation of 38–46
institutional provision of 46–52, 55
local innovation process 64–73
local knowledge, filling gap between global knowledge and 279–81
local market, use of 21, 59–73, 260
localization dilemma with globalization 13–14, 15–16
increased role for 61–4
localization forces 59–61
location patterns
conceptual framework and research outlook 225–7
European regions 227–41
innovation systems approach 223–4
MNCs and regional links 224–5
lock-in 8, 30, 39, 50, 52, 53, 124, 265, 266, 336–7
Lombardy design-intensive region 109
Lorenz, E. 83
low-wage manufacturing, CEE countries as 300–302
Lowenstein, R. 108
Lower Saxony, automobile industry 175
Luckmann, T. 274
Lundan, S.M. 2, 11, 29, 34
Lundvall, B.-Å. 5, 7, 83, 223, 271, 273
Luxembourg, role of MNCs 313, 317–23
McDermott, G.A. 316
Madhok, A. 60
Malerba, F. 223
Malmberg, A. 31, 35, 61, 68, 333, 334
management style, clusters 130–31
management tools, interdisciplinary projects 181
Mansfield, E. 312
market coordination 224–5, 295–7
market dynamics, SKIN model 149–51
market environment and MNE
location 226–30, 242
cluster analysis 232, 233, 234, 235
discriminant analysis 235–7
indicators and variables 229
Marklund, G. 198
Markusen, A. 266, 333
Marshall, A. 9, 62, 63
Marsili, O. 86
Martin, A.M. 213
Maskell, P. 31, 35
Mates, J. 14, 15, 37, 60, 331, 332, 334
Maurice, M. 6, 273, 275
mediating institutions 48, 50, 51, 306
Mendel, G. 274
mergers and acquisitions (M&A) 61, 71–3, 312–13, 319–20
Metcalfe, S. 7
Meyer, K.E. 2, 13, 319
Meyer-Krahmer, F. 205, 225, 313
Michael, D.N. 151
Michel, J. 143
Michelet, R. 153
Miles, I. 199
Minshull, T. 175
Miozzo, M. 201
mobility paradigm 250–51
Molina, O. 295
Monteiro, L.F. 33
Moodysson, J. 82
Morgan, G. 79, 332
Mothe, C. 281
Mudambi, R. 34, 171, 222
Muller, E. 198, 201, 205, 279, 284
multi-domestic MNC model 65–6
multi-home-based corporation (MHC) model 61, 68–71
solving insider–outsider problem with 71–3
multi-level perspective (MLP) school 109–10
multinational company-dominated platforms 123–5
multinational company-induced problem solving 40, 41, 46–9
multiple embeddedness, dilemma of 15–16, 329, 332, 334, 339
multiple partners, cooperation of 284–6
Munich, bio-tech/mechanical engineering industries 175
Murrell, P. 317
Mustar, P. 278
mutual information 153
mutual learning 9, 35, 218, 219, 337
mutual non-interference 40–44, 53–4
mutual problem solving 40, 41, 49–53, 54

Narula, R. 143, 227, 271, 311, 312, 315, 316, 321, 333
National Agency for Research (ANR), France 279
national business systems 6–7
National Centre for Scientific Research (CNRS), France 277
national champions 36, 278, 312–13
national coordination versus regional initiatives 283–4
national innovation systems
policy implications 323–5
relevance of foreign subsidiaries 161–4
role of MNEs 311–13, 317–23
transitions and 314–17
national institutions, embeddedness via 5–8, 15
national systems of innovation
approaches 5, 195, 196, 223
Negro, S. 110
Nelson, R.R. 4–5, 109, 223, 313
neo-institutional approaches 4, 274
Netherlands, role of MNCs 313, 317–23
networks-based approaches 31–3, 34
new cultural geography 250–51
new geography of innovation 194, 217–18
new member states, EU
policy implications 323–5
role of MNEs 311–13, 317–23
transition and national innovation systems 314–17
Newman, K. 317
niche management strategies 112–33
Nobel, R. 69, 142
Nölke, A. 296

non-economic subsystems, interaction with 31–3
non-OECD countries, integration into R&D investments 193–4
Nonaka, I. 82
North Jutland clean technologies support 125–8
North, D.C. 3, 273, 274
North-Rhine Westphalia, chemical/healthcare industries 175
North-West England, automobile industry 176
Norwegian innovation survey 86–7
not-invented-here (NIH) syndrome 68
OECD countries, influence on territorial dynamics 193–4
offshoring 60, 194, 200, 206–7, 213, 214, 216
Ohmae, K. 2, 223
Ontario auto-parts cluster 124–5
open innovation 32, 64, 105, 107, 109, 135, 193, 266
transfer to 314–17
organization dimension, ODIP 196–8, 204
organizational decomposition of innovation processes (ODIP)
actors and processes in 201–9
actors, processes and territorial dimension 195–8
empirical analysis and research methodology 200–201
empirical results 201–17
expansion of scope of 213–14
innovation and production in software industry 198–200
modes of 196–8, 201–3
territorial shaping of 209–13
organizational infrastructure for innovation 179–81
organizational perspective, embeddedness 33–5
organizational relations, fundamental differences with regional relations 31–3
original equipment manufacturers (OEM) 124, 125
Ostry, S. 313
outourcing 66, 107, 200, 214, 217

see also ‘cost-driven outsourcing firms’

Owen-Smith, J. 89

ownership and regional engagement 254–5

packaging industry 129–34

Pact for Research (2005), France 279

Parsons, T. 273

participative learning 80, 153, 282

partner identification 185

partner search spaces 80–99

partner search strategies 153–4

patents

coco-patenting networks 81

Germany 174–5

Ireland 144, 163, 164

tinal advantage 229, 231, 232, 235, 237, 242

software industry 215–16

Patton, M.Q. 283

Pauly, L.W. 79

Pavitt, K. 149

Pearce, R.D. 70, 143, 313

Pedersen, T. 59, 68, 143, 332

Peng, M.W. 12, 13, 34

Perez, C. 110

Persaud, A. 80

Peugeot (PSA) 304–5

pharmaceutical sector, technological capability 172–88

Pharmacia 112, 119, 121, 122

Phene, A. 2, 29, 142

Piore, M.J. 9, 335

Piscitello, L. 224, 225, 227, 312

Poland

export industries 299–300, 302–6

trol role of MNCs 313, 317–23

Polanyi, K. 4, 14, 32

political embeddedness 11, 13–14, 46–52

political environment 226, 228

political conditions, effects on embeddedness 252, 253–4

political construction of embeddedness 335–7

political reforms, France 278–9


Portugal, role of MNCs 314, 317–23

Potterie, B. 79, 96

Powell, W.W. 89, 154, 274

price adjustment mechanism 150–51

private equity companies 254

private network arrangements 305–6

privatization 300, 316, 319–20, 323

privileged cooperation 49–52

procedural knowledge 142, 211–12, 218

Processum Technology Park Cluster Initiative 113–15

production system, software industry 198–200

productive local systems (SPL) 279–80, 282

project-based activities, software industry 199

protectionism 65, 66, 320–21

proximity

as common knowledge 198

and distributed networks 84–6, 90–91

as main driver for contact 42

t network effects 9

Prud’homme van Reine, P. 253, 254

public funding 47, 48, 113, 116, 117–18, 120, 127–8, 134, 186, 188, 279, 283, 289, 314

public research environment and location 226–30, 242

cluster analysis 232–4, 235

discriminant analysis 235–7

indicators and variables 229

public-driven innovation centres 234

matching with location of MNCs 238–41

public-listed companies 254

public-private partnerships 120, 154, 183, 261, 262, 281–2

Puga, D. 312

‘pull’ environments 63, 111

pulp and paper sector 113–15

Pyka, A. 146, 149

Pyke, F. 335

quality of life, regional importance of 252, 257
Index

radical learning 148, 153, 157
Radošević, S. 315, 317, 321
Rallet, A. 216
Rammert, W. 271
rank, logic of 275–6, 286–7
Reger, G. 67, 225, 313
regional activities 257–63
regional advantages, creation of 263–7
Regional Development Programme, Sweden 134
regional economies
  contributions to 132–3
  foreign MNEs as threat to 37–8
regional embeddedness 8–10, 15
  advantages and risks of 36–8, 39–46
  construction of regional advantage 263–7
  integrating organizational and regional perspectives 31–8
  types of 38–54
regional embeddedness modes
  case studies 252–3
  patterns of regional engagement 253–9
  motivations, expectations and strategies of engagement 259–63
regional engagement patterns, effects on 253–9
regional environment, barriers between companies and 31–3
regional initiatives versus national coordination 283–4
regional innovation systems (RIS) approach 9–10, 36, 46, 120, 132, 171–2, 208, 210, 222–3
regional institutional characteristics
  conceptual framework and research outlook 225–7
  innovation system approach 223–4
  MNCs and regional links 224–5
  and presence or absence of MNCs in European regions 227–41
regional institutions, embeddedness in 8–10
regional network diversity 87–90
regional networks
  embeddedness in 8–10
  use of 262–3
regional perspective, embeddedness 35–6
regional problem solving 40, 41, 44–6, 54
regional relations, fundamental differences with organizational relations 31–3
regional roots, engagement by 255
regional stability, effects on engagement 252, 253–4
regional studies 3, 17, 30, 35–6, 37, 54, 108
regional-level capability building
  human resources 178–9
  innovation networks 187–8
  R&D organization 181–3
regulatory state, France 277–82
Rehfeld, D. 250, 259, 262
Reich, S. 79
Reiner, R. 61
related variety theory 18–19, 98, 106, 107–12, 118, 121, 122, 123, 135
relative unit values (RUV) 300, 302
relocation hypotheses 249–50
renewable energy sector 113–15, 125–8
research and development (R&D)
  decentralized structures 187
  expenditures 229, 233, 234, 235, 318–19
  intensity 319–20
  Ireland 143–4
research and development (R&D) organization capabilities
  firm-level 179–81
  methodology 173–4
  firm–region interaction 181–3
research and development (R&D)-intensive FDI 312–13
research institutes
  collaboration with 185–6, 212, 234, 316
  France 280, 281, 284–6
  Germany 175
  Ireland 47, 163, 146, 162
  as resource 42, 43, 44, 47
  role in territorial knowledge dynamics 195–8, 201–9
  Toronto 125
  UK 175–6
resources
exploitation of 38–46
flexibility of 62–3
institutional provision of 36, 39, 46–52, 53, 55
Retour, D. 280, 282
Rhodes, M. 295
Ridderstråle, J. 68
risks, regional embeddedness 36–54
Robotdalen (Robotics Valley) 112, 115–17, 121–2
robotics industry 115–17
Ronstadt, R.C. 69
Ross-Schneider, B. 295
Rossi, L. 273
Royce, W. 206
Rugman, A.M. 37–8, 313
Ruigrok, W. 79, 250
Sabel, C.F. 9, 335
sales subsidiaries 70, 71
Saliola, F. 243
Salter, A. 86, 90
Santangelo, G.D. 227, 333
Santos, J.F.P. 142
Sassen, S. 242
Saviotti, P.P. 149
Saxenian, A. 31
Scepanovic, V. 300, 302
Schild, J. 278
Schlegelmilch, B.B. 142
Schmitz, H. 196
Schnellenbach, J. 79
Schoenberger, E. 267
Schön, D. 151–2
Schrock, G. 266
science excellence (SE) regional model 19, 106, 122, 129–34
Science Foundation Ireland (SFI) 161
science parks 175, 187
science-based (analytical) knowledge 82–3
scientific networks
identification of academic partners 185
knowledge creation and diffusion 185–6
Scott, A.J. 242, 335
Seeley Brown, J. 110, 111
Segelod, E. 199, 206
Sengenberger, W. 335
service-driven innovation centres 234
matching with location of MNCs 238–41
'shallow' industrialization 306
Shin, J. 143
Sierra, C. 80
Silicon Valley 60, 62, 110
Simon, H. 81
Simulating Knowledge Dynamics in Innovation Networks (SKIN) model 148–56
Sinani, E. 319
single-loop learning 151–2
Skåne Food Innovation Network (SFIN) 112, 117–19
skill requirements 82, 83
skill shortages, CEE countries 301–8
skills forecasting 177–8
skills up-grading 176–7
Slovakia
export industries 299–300, 302–6
role of MNCs 313, 317–23
Slovenia, role of MNCs 313, 317–23
small and medium sized enterprises (SMEs)
in competitive clusters 280, 281, 282, 284–6, 287–8
France 274–5, 276, 277, 279
interdependencies with MNCs 112–27
knowledge diffusion and innovation performance 156–61
regional policies 36
small countries, MNCs from 65–6, 69, 73
social capital 260, 261–2
social construction of embeddedness 335–7
social networks 21, 96, 177, 251, 271, 272
importance of 285–6
SMEs 262
trust and segmentation in 276–7
social proximity 39, 42, 48, 98
social systems of production (SSP) approach 5–6
socioeconomic system, France 274–7
Soete, L. 78
Index

software industry actors and processes in ODIP 201–9
emerging new geography of innovation 217–18
innovation and production 198–200
role of subsidiaries in territorial knowledge dynamics 213–17
territorial shaping of ODIP 209–13
Sölvell, Ö. 2, 60, 61, 67, 69, 72, 272, 332
Song, J. 143
Soskice, D. 5, 6, 273, 277, 295, 296, 304, 307
South Netherlands, regional engagement patterns 252–9, 266
Spain, role of MNCs 314, 317–23
Spatareanu, M. 319
spatial dimension changes in engagement 258–9
ODIP 197–8, 204
spatial proximity 35, 42, 84, 99, 173, 187, 211–12, 280
specialization 6, 10, 34, 37, 233, 280
specialization–diversification debate 18, 106, 107–8
specialized clusters, development of 49–52
spin-offs/spin-outs 83, 117, 121, 146, 175, 182, 185, 187
sponsorship activities 185, 186, 189, 255, 259–60, 263
spontaneous embeddedness 250–51, 253
compared to constructed embeddedness 259–63
start-up businesses 19, 51, 116, 120, 131, 133, 182, 187, 255
simulation 155
state-owned MNCs 228–30, 320
'sticky' knowledge 14, 81, 84
Stiglitz, J. 295
Storper, M. 9, 37, 79, 249
Strambach, S. 196, 198, 200, 201, 205
strategic coordination 295–7, 304–6
strategic niche management models 112–22
strategic orientation, France 274–5
strategic plans, clusters 130–31, 133–4
strategic process, embeddedness as 337–40
strategy elements and solutions, MNCs 64–73
Streeck, W. 5
Strobl, E. 79, 312
Sturgeon, T.J. 5, 77, 81
Styria, Austria, regional engagement patterns 252–9, 265, 266
subcontracting 111, 119, 146
subsidies autonomy of 20, 34, 59, 72, 209, 212, 214–16, 218, 297–8
external embeddedness 11–12
role in territorial knowledge dynamics 195–8, 201–9, 213–17
subsidies 47, 64, 126, 127–8, 300, 335
Sundbo, J. 198
suppliers role in territorial knowledge dynamics 195–9, 201–9
technical upgrading 303–4
supply-side innovation 107, 108–9, 321
sustainability, regional importance of 252, 257
Sweden bioethanol cluster and market 113–15
biopharmaceutical cluster 119–22
food cluster 117–19
packaging cluster 129–34
robotics cluster 115–17
role of MNCs 313, 317–23
Swedish Innovation Agency 117
symbolic capital 249, 261, 336
synthetic knowledge base 81–2, 83–4
Szulanski, G. 80
tacit knowledge 14, 35, 36, 54, 82, 83–4, 85, 111, 205, 225, 262, 272
talent management 176–7, 179, 186
tax incentives 113, 115, 126, 143, 144, 297, 300
technical training, CEE countries 301–8
technological capabilities case study results 176–88
methodology and framework for analysis 172–4
regional location of MNCs 174–6
theoretical background 170–72
Technopôles, 278, 282
Innovation and institutional embeddedness of MNCs

Teece, D.J. 213
temporary projects 68
territorial knowledge dynamics 195–8
role of subsidies 213–17
territorial shaping of ODIP 209–13
Tesfatsion, L. 148
TetraPak 117, 119, 121, 129
Tett, G. 108
Thames Valley, IT/life sciences industries 175–6
theranostics industry 119–22
Thoin, M. 279, 280
Thrift, N. 331
Thuriaux, B. 36
Tödtling, F. 200
top-down relations 135, 179–81
France 272, 274–6, 277, 284, 288
Torre, A. 212, 216
trade unions 6–7, 35, 39, 303
training
CEE countries 301–8
company-level 303–5
Denmark 127, 129
France 276–7
Germany 262–3
needs 5–6, 82
university provision of 178
transaction cost approach 9, 11, 13, 34, 35, 249–50
transition and national innovation systems 314–17
transnational corporation (TNC) model 66–8
transport industry, embeddedness 46–9, 53
transversality 18–19, 111–12, 117, 118–19, 129, 135
Trefler, D. 312
triangular network structure 280–81, 284
Troitzsch, K.G. 147
Trompenaars, A. 275, 277
trust 272, 276–7, 285–6
Tulder, R. van 79, 250
Turkey, automotive cluster 123–5
UK, capabilities and regional embeddedness
case study results 176–88
regional location of MNEs 174–6
UK, role of MNCs 313, 317–23
universities collaboration with 150–51, 178, 185–6
commissioned research 196
France 276–7
geographical proximity 187
Germany 174–5, 212, 262–3
identification of academic partners 185
Ireland 146, 147, 162, 163
R&D expenditures 229, 232, 234, 235
as resource 42, 43, 44, 47
role in territorial knowledge dynamics 195–8, 201–9
spin-offs/spin-outs 83, 117, 121, 146, 175, 182, 185, 187
sponsored chairs 260
strengthening links with 261
Sweden 113–14, 129–31
training provision 178
UK 175–6
untraded interdependencies 9
Uppsala BIO 112, 119–22
user-driven innovation 109, 111, 116, 117–19, 121, 122, 135
Uterwedde, H. 276, 278
value chain, labour division in knowledge production along 203–9
value creation, industrial networks 184–5
Van den Bergh, J. 110
van Everdingen, Y. 273
varieties of capitalism (VoC) approach 6
varieties of innovative impulse
MNC–cluster interaction models 122–34
related-variety theory 107–12
strategic niche management models 112–22
Värmland region Packaging Arena 129–34
Venables, A.J. 249
venture capital companies 254
Verbeke, A. 37–8, 313
Verganti, R. 107, 109, 111
Index

Vernon, R. 142
vertical coordination 87–8, 89, 93–4, 123, 213, 216, 274–5, 277, 278, 288
Veugelers, R. 86
Visegrád 4 countries, export industries 299–300, 301, 302–6
Vliegenthart, A. 295
vocational training, CEE countries 301–8
Voelzkow, H. 8, 10, 334
Volkswagen (VW) 301, 304–5
Von Hippel, E. 107, 109
von Tunzelmann, N. 169, 171, 172, 333
von Zedtwitz, M. 225
Waarts, E. 273
Wakasugi, R. 243
Wales, regional engagement patterns 252–9, 265, 266
Wang, Q. 169, 171
waste recycling sector 113–15
Weick, K.E. 32, 330
Weidmüller Academy 262–3
Weil, T. 279, 280
Welzel, C. 273
West Midlands, automobile industry 176
Westley, F. 330
Westney, D.E. 12, 33, 333
Whitley, R. 5, 6, 7, 273, 276
Wicksteed, B. 175
Wilks's lambda significance test 235–6, 237
Williams, K. 12, 13
wind turbines 125–7
Winter, S.G. 150
Womack, J.P. 5
world-class clusters 59–60, 62–3, 68–9, 70, 73
Yamin, M. 12
Zaheer, S. 12, 33, 333
Zander, I. 12, 33, 60, 61, 66, 67, 70, 72, 332
Zander, U. 142, 195, 213
Zanfei, A. 195, 213, 243, 271, 311
Zeitlin, J. 5, 29, 34, 37, 52–3, 225
Zenker, A. 224
Zhang, F. 119