Index

3 per cent 90, 193, 194, 208, 314, 320
Abramovsky, L. 227, 229
‘accession effect’ 301
Acs, Z.J. 150
Adams, J. 182
Adams, J.D. 129
additionality 132–4, 135, 136, 165
aerospace sector 6, 28–31, 204–6, 207
Aghion, P. 18, 103, 109, 114, 220, 222, 224
agricultural commodities 334, 339
Aho report 316
Airbus 107
Ali-Yrkkö, J. 133
All European Academies (ALLEA) 71
Amable, B. 109
Amaldi, Edoardo 29, 37
AMPERA 50
André, M. 15, 36, 69, 76, 350
Antonelli, C. 151
Aoki, M. 116
‘Applied IST Research Addressing
Major Societal and Economic
Challenges’ 170
appropriability 127, 148, 149, 151, 154, 155, 181
Ariane 30, 31, 35, 41, 107
Arianespace 30, 37, 41
Arrow, K.J. 127
Article 169 42, 80, 88, 176, 185, 190
Article 171 186
Artus, P. 114
Asian challenge 101–2, 110, 120, 124
astronomy 27–8
Atacama Large Millimetre/
submillimetre Array (ALMA) 27, 41
atmospheric science 29, 37
Attali, J. 41
Audretsch, D.B. 150
Auger, Pierre 24, 29, 37
Australia 241, 251
Austria, co-inventions 301
All European Academies (ALLEA) 71
Baldwin, R. 332
Barber, M.J. 165
Barcelona European Council 89, 197
Barras, R. 150
Basic Research in Industrial
Technologies in Europe (BRITE)
16, 66, 76
Batagelj, V. 268
Battrick, B. 29
Beffà, J.-L. 110
behavioural additionality 135, 165
Beine, M. 322
Belgian National Fund for Scientific
Research (NFSR) 22
Bernal, J.D. 4
Berry, R.A. 322
Bhagwati, J. 333
bibliometric analysis 286–7
Bigot, B. 42
bilateral research cooperation policies
46–7, 56–7
BIODIVERSA 50
biotechnology 33, 60, 70, 129, 145, 150,
161, 212, 248, 293, 301, 303
Blamont, J. 42
Blank, D.M. 132
Blay, M. 24
Blue Card Scheme 250, 252
Bologna Process 18
Borgatti, S.P. 268
Borghans, L. 136
Börner, K. 268
Bossuat, G. 26
Bound, J. 150
brain drain 11, 250, 321–2
Branstetter, L.G. 183
Brazil 264, 265, 267, 268
Brenner, T. 119
Breschi, S. 165
BRIT-EURAM 16
Brooks Report (OECD) 9–10
Buissneret, T.J. 135
Bush, Vannevar 222
business expenditure on R&D (BERD) 138, 199, 203, 206, 207, 208, 212, 226
Busom, I. 183
Busquin, P. 72, 73
Calero, C. 268
Calverley, C. 338
Campbell, C. 333
Canada 20, 136, 241, 244–5, 251, 252, 253, 306, 307
Candidate Countries 239, 240, 258–68, 274–5, 277, 287
Capron, H. 175
Caracostas, P. 317
Carlsson, B. 150
Casimir, H. 9
Cassir, L. 170
CATRENE 33, 40
centres of excellence 45, 109, 163–4
Chakrabarti, A.K. 181
Chang, Y.-C. 182
chemicals sector 204, 205, 206, 230
Chesbrough, H.W. 181
China 102, 120, 202, 237, 238, 239–40, 241, 249, 252, 260, 261, 264, 265, 280, 282
Cincera, M. 137, 175
citations 215–19, 235–7, 285, 298–9
Civil Society Organizations (CSOs) 338
Clark, K.B. 150
clinical medicine research 270, 272, 273, 274, 275–7
clusters 33, 40, 163
Coal and Steel Research Fund 12
Code of Conduct for the Recruitment of Researchers 82
Cohen, E. 209
Cohen, W.M. 129, 149, 150, 227, 229
cohesion 73, 83, 84, 103, 160, 162, 167, 173, 318
cohesion policy programmes 83–4
co-inventorship 293–6, 311
Cold War 7, 11, 34–5, 41
collaboration 71, 176–80, 180–84, 185, 190
collaborative networks 166, 269, 270, 273–4
Comanor, W.S. 148, 150
Commander, S. 322
Common Agricultural Policy (CAP) 114, 115, 339
Community patent 22, 74, 81, 293, 311
common pot (funding) 47, 52, 54
Community research policy development 64–7, 68–70, 70–71, 73–7
Community Strategic Guidelines, 2007–2013 83
Community-level European Research Area policy actions 78, 79–80, 80–81, 81–2, 82–3, 83–4, 85–6, 87–9, 89–93, 93–5
competition 110, 304, 311, 332–3, 336
competitiveness 31, 32, 323, 336, 343–5
Competitiveness and Innovation Framework Programme (CIP) 82, 344–5
complementarities 48, 112, 121, 170
complementarity (economies of) 92, 121, 144, 146, 151,
concertation networks 70
Conférence européenne de la Culture 24
Constitutional Treaty 17
cooperation 12–13, 13–16, 16–17, 69–70, 293–6, 299, 301, 302
Coopération européenne dans le Domaine de la Science et de la Technologie (COST) 14, 35, 71
coordination 8, 12, 14–15, 48, 56, 64, 65–7, 68–70, 74, 75, 81, 84, 93, 95, 103, 104, 112, 123, 144, 162, 166, 167, 169, 172, 180, 324, 343, 346–7, 353, 355–7
COPOL 88 66
CORE ORGANIC 50
Index

Coriat, B. 118
CORNET 50
CREST (Scientific and Technical Research Committee) 15, 40, 65, 66–7, 81
Cresson, Edith 72
critical mass xvii, 45, 47, 49, 50, 59, 79, 142, 156, 160, 163, 171, 291, 337, 344, 349
Croatia 261, 265, 268, 272, 273, 274
cross-border collaboration 176–80, 180–84, 184–5, 190
crowding-in 179
crowding-out 132, 133, 134
Curien, Hubert 37, 41
Cusmano, L. 165

Dahrendorf, R. 14–15, 65, 66, 76, 353
Darby, M.R. 129
Dasgupta, P. 127, 130, 134
David, P. 111, 118
David, P.A. 4, 130, 132, 134
Davignon, E. 16, 32, 66, 353
de Nooy, W. 271
defence, intergovernmental cooperation 34, 35, 38, 40, 41, 42, 109, 205, 316
Defense Advanced Research Projects Agency (DARPA) 11, 34–5
Le Défi américain (Servan-Schreiber) 11
Dehove, M. 110
de-industrialization 315–16
Delors, J. 67
demographic dynamics 314, 321, 333, 334, 336, 337, 349
Deng, Yi 299
Denis, C. 193
DG Information Society Technologies (IST) 170
diffusion hubs 171
diffusion networks 170–71
Distributed European Infrastructure for Supercomputing Applications (DEISA) 80
doctorate recipients 242–3, 244
Doha Round trade negotiations 318–19, 325
Dornberg, W. 28–9
Dosi, G. 130, 131
duplication 47, 48, 49, 50, 64, 68, 123, 134, 153, 154, 177, 181, 187, 339, 341
Dutta, P.K. 102
Duysters, B. 154

E+30 15
Ebersberger, B. 133
economies of complementarity 144
economies of scale and scope in research 142–6, 146–51, 151–6
Edgerton, D.E.H. 4
Edler, J. 331
Edquist, C. 165
e-infrastructures 80, 178–9
Eisner, R. 136
electronic networks xvii, 74, 80, 85, 111
Enabling Grids for E-scienceE (EGEE) 80
energy prices 336, 337–8
engineering sciences 37, 217
ERA-NET 44, 47, 49, 50, 51–3, 56, 58, 59, 60, 80, 81, 86, 87–88, 96, 176, 187, 190
ethics 85, 344
European Academy 71
European Aeronautic Defence and Space Company (EADS) 35
European Agency for Research and Development (ERDA) 14
European & Developing Countries Clinical Trials Partnership (EDCTP) 80, 88
European Atomic Energy Community (Euratom) 7, 12, 13, 15, 16, 17, 26, 70
European Centre for Medium-Range Weather Forecasts (ECMWF) 16, 28, 36, 71
European Charter for Researchers 82
European Coal and Steel Community (ECSC) 7, 12, 17, 25–6
Coal and Steel Research Fund 7, 12, 17, 25–6
European Committee of Research and Development (CERDA) 14
European Communities 7, 14, 64
European Cooperation for the Long Term in Defence (EUCLID) 34
European Defence Agency (EDA) 35, 40
European Defence Community (EDC) 37, 41
European Economic Area (EEA) 239, 240
European Economic Community (EEC) 7, 13, 14, 17, 26
European Free Trade Area (EFTA) 242
European Higher Education Area (EHEA) 317, 321
European Incoherent Scatter Scientific Association (EISCAT) 28
European Industrial Research Management Association (EIRMA) 9
European Investment Bank (EIB) 74, 209, 212
European Investment Fund 82
European Laboratories Without Walls (ELWW) 70
European Molecular Biology Laboratory (EMBL) 15, 27, 36, 41, 44, 69, 71, 76, 190, 342, 349
European Molecular Biology Organization (EMBO) 15, 26–7, 41, 71
European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) 16, 30, 41, 190
European Organization for Nuclear Research (CERN) 13, 15, 24–5, 26, 27, 29, 35, 36, 37, 39, 40, 41, 44, 66, 68, 69, 71, 190, 235, 342, 349
European Patent Office (EPO) 293
European Regional Development Fund 83
European Research Area Community-level policy actions 78, 79–80, 81–2, 82–3, 83–4, 85–6, 87–9, 89–93, 93–5
European Research Council (ERC) 15, 17, 21, 74–5, 87, 347
European Roadmap for Research Infrastructures 79, 88
European Science Council 234
European Science Foundation (ESF) 15, 71
European Social Model 103
European Southern Observatory/European Organisation for Astronomical Research in the Southern Hemisphere (ESO) 13, 15, 27–8, 36, 37, 41, 71
European Space Agency (ESA) 15, 30–31, 36, 37, 39, 41, 71
European Space Research Organization (ESRO) 29–30
European Space Vehicle Launcher Development Organization (ELDO) 29–30
European Strategy Forum on Research Infrastructures (ESFRI) 40, 58, 79, 354
European Strategic Programme for Research and Development in Information Technology (ESPRIT) 16, 32
European Synchrotron Radiation Facility (ESRF) 15–16, 27, 28, 36, 41, 71
European Transonic Windtunnel (ETW) 16, 28, 36
European University Institute (EUI) 13
European value-added/European added-value 49, 53, 54, 73, 93, 95, 121, 128, 145, 161, 176, 186, 203, 204, 206, 207, 355
Europe-wide e-Infrastructure (GEANT) 80
EUROTRANSBIO 50
evidence-based policy-making 355
<table>
<thead>
<tr>
<th>Index</th>
<th>361</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explorer-1</td>
<td>29</td>
</tr>
<tr>
<td>externalities</td>
<td>109, 112, 113, 115, 117, 121, 122, 123, 127</td>
</tr>
<tr>
<td>Extremely Large Optical/Infrared Telescope</td>
<td>28</td>
</tr>
<tr>
<td>Facing the Challenge</td>
<td>103, 109</td>
</tr>
<tr>
<td>faculty patents</td>
<td>130–31</td>
</tr>
<tr>
<td>Faems, D.</td>
<td>180, 181, 182</td>
</tr>
<tr>
<td>Fagerberg, J.</td>
<td>320</td>
</tr>
<tr>
<td>Falk, R.</td>
<td>135</td>
</tr>
<tr>
<td>Falvey, R.</td>
<td>182</td>
</tr>
<tr>
<td>Fernández-Ribas, A.</td>
<td>183</td>
</tr>
<tr>
<td>Findlay, A.</td>
<td>322</td>
</tr>
<tr>
<td>Finne, T.</td>
<td>180</td>
</tr>
<tr>
<td>Ford Foundation</td>
<td>13</td>
</tr>
<tr>
<td>foresight</td>
<td>15, 60, 84, 88, 233, 345, 346, 349, 355</td>
</tr>
<tr>
<td>Former Yugoslav Republic of Macedonia</td>
<td>265, 268, 272, 273, 274</td>
</tr>
<tr>
<td>fragmentation</td>
<td>48, 49, 90, 91–2, 94, 117, 162, 173, 339</td>
</tr>
<tr>
<td>Framework Programme(s)</td>
<td>14, 15, 16–17, 21, 33, 47, 70, 73, 75, 78, 79, 80, 83, 84, 86, 87, 90, 93, 96, 107–8, 119, 123, 156, 160, 161–5, 165–7, 168, 169, 170, 171, 172, 176, 177, 179, 183, 184, 185, 211, 313, 320, 323, 324, 347</td>
</tr>
<tr>
<td>France</td>
<td></td>
</tr>
<tr>
<td>Centre National de la Recherche Scientifique (CNRS)</td>
<td>6, 19, 15, 222, 223</td>
</tr>
<tr>
<td>Centre National d’Études Spatiales (CNES)</td>
<td>6, 30, 42</td>
</tr>
<tr>
<td>Centre National pour l’Exploitation des Océans (CNEXO)</td>
<td>6</td>
</tr>
<tr>
<td>Commissariat à l’Energie Atomique (CEA)</td>
<td>6</td>
</tr>
<tr>
<td>Délégation Générale de la Recherche Scientifique et Technique (DGRST)</td>
<td>6</td>
</tr>
<tr>
<td>Déléguée Général à la Recherche Scientifique et Technique (DGRST)</td>
<td>8, 14</td>
</tr>
<tr>
<td>grandes écoles</td>
<td>6, 19</td>
</tr>
<tr>
<td>highly cited researchers</td>
<td>217, 218</td>
</tr>
<tr>
<td>human resource policy for foreign workers</td>
<td>250</td>
</tr>
<tr>
<td>industrial technology funding</td>
<td>227</td>
</tr>
<tr>
<td>Institut National de la Recherche Agronomique (INRA)</td>
<td>6, 222</td>
</tr>
<tr>
<td>Institut National de la Santé et de la Recherche Médicale (INSERM)</td>
<td>6</td>
</tr>
<tr>
<td>Institut Pasteur</td>
<td>222</td>
</tr>
<tr>
<td>joint research groups</td>
<td>19</td>
</tr>
<tr>
<td>Ministry of Defence</td>
<td>6</td>
</tr>
<tr>
<td>Plan Calcul</td>
<td>19</td>
</tr>
<tr>
<td>post-war research</td>
<td>6</td>
</tr>
<tr>
<td>R&amp;D internationalization</td>
<td>296</td>
</tr>
<tr>
<td>Sophia Antipolis</td>
<td>19</td>
</tr>
<tr>
<td>technological competitiveness concerns</td>
<td>31–2</td>
</tr>
<tr>
<td>unités mixtes</td>
<td>6, 19</td>
</tr>
<tr>
<td>universities</td>
<td>6, 19, 223</td>
</tr>
<tr>
<td>Frascati Manual</td>
<td>9</td>
</tr>
<tr>
<td>Freeman, C.</td>
<td>108, 149, 317</td>
</tr>
<tr>
<td>Frejka, T.</td>
<td>333</td>
</tr>
<tr>
<td>Frontier research</td>
<td>17, 75, 87</td>
</tr>
<tr>
<td>Fukimoto, T.</td>
<td>150</td>
</tr>
<tr>
<td>Galbraith, J.K.</td>
<td>148</td>
</tr>
<tr>
<td>Galileo (navigation satellite project)</td>
<td>31, 39, 42</td>
</tr>
<tr>
<td>Gaudin, T.</td>
<td>20</td>
</tr>
<tr>
<td>Gelauff, G.M.M.</td>
<td>211</td>
</tr>
<tr>
<td>Gender Action Plan (GAP)</td>
<td>83</td>
</tr>
<tr>
<td>gender equality</td>
<td>83</td>
</tr>
<tr>
<td>General Agreement on Tariffs and Trade (GATT)</td>
<td>315</td>
</tr>
<tr>
<td>General Agreement on Trade in Services (GATS)</td>
<td>340</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
</tr>
<tr>
<td>Deutsche Forschungs Gemeinschaft</td>
<td>4, 5, 25</td>
</tr>
<tr>
<td>Deutsches Elektronen Synchrotron (DESY)</td>
<td>27</td>
</tr>
<tr>
<td>faculty patents</td>
<td>130–31</td>
</tr>
<tr>
<td>Fraunhofer Gesellschaft</td>
<td>5</td>
</tr>
<tr>
<td>German Aerospace Centre (DLR)</td>
<td>28, 30</td>
</tr>
<tr>
<td>Helmholtz Gesellschaft</td>
<td>5</td>
</tr>
<tr>
<td>highly cited researchers</td>
<td>217, 218</td>
</tr>
</tbody>
</table>

Henri Delanghe, Ugur Muldur and Luc Soete - 9781849803281
Downloaded from Elgar Online at 04/21/2019 02:02:56PM via free access
industry-financed research and development 227–32, 230, 231, 232, 233
information and communication technologies (ICT) 17, 47, 54, 90, 96, 102, 119, 130, 161, 167–73, 201, 204–7, 209, 211, 212, 301, 303, 332, 343
Information Society Technology, Research, Technological Development and Demonstration (IST-RTD) projects 168, 169–70
INNER 50
innovation 17–18, 22
innovation networks 152
innovation policy 3–4, 19–20, 114, 128
Innovative Actions programmes 84
Institut de Radioastronomie Millimétrique (IRAM) 28
Integrated Projects (IPs) 79, 163, 164, 166, 168–9, 170
intellectual property rights (IPRs) 52, 53, 81, 92, 118, 127, 169, 170, 233, 336, 340
intergovernmental 3, 14, 21, 24–32, 34–42, 44, 57, 58, 59, 75, 78, 91, 176, 177, 179, 185, 190, 342, 346, 347, 350, 353, 354, 355
intergovernmental cooperation aerospace research 28–31
astronomy 27–8
Atacama Large Millimetre/submillimetre Array (ALMA) 27
barriers to 49, 51–4
bilateral and multilateral policies 46–7, 56–7
complementarities 47–8
defence 34, 35
Deutsches Elektronen Synchrotron (DESY) 27
drivers of 49, 50
duplication 48
EUREKA 32–4, 37
European Centre for Medium-Range Weather Forecasts (ECMWF) 16, 28, 71, 190
European Cooperation in Science and Technology/Coopération européenne dans le Domaine de la Science et de la Technologie (COST) 14, 35–6, 37, 44, 59, 71, 176, 190
European Incoherent Scatter Scientific Association (EISCAT) 28
European Molecular Biology Conference 27, 190
European Molecular Biology Laboratory (EMBL) 15, 27, 36, 41, 44, 69, 71, 190, 342, 349
European Molecular Biology Organization (EMBO) 15, 26, 27, 41, 71
European Organization for Nuclear Research (CERN) 13, 15, 24–5, 29, 36, 37, 41, 71
European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) 16, 30, 41, 190
European Southern Observatory/European Organization for Astronomical Research in the Southern Hemisphere (ESO) 13, 15, 27, 28, 36, 37, 39, 41, 42, 71, 190
European Space Agency (ESA) 15, 30, 31, 34, 36, 37, 39, 41, 66, 68, 69, 71, 75, 122, 190, 354
European Space Research Organisation (ESRO) 29, 30
European Space Vehicle Launcher Development Organisation (ELDO) 29, 30
European Synchrotron Radiation Facility (ESRF) 16, 27, 28, 36, 41, 42, 68, 71, 190, 349
European Transonic Windtunnel (ETW) 16, 28, 36, 37
Extremely Large Optical/Infrared Telescope 28
fragmentation 48
infrastructures 27–8, 36, 39–40, 88
Institut de Radioastronomie Millimétrique (IRAM) 28
Institut Laue-Langevin (ILL) 36, 71, 156, 289
Large Hadron Collider (LHC) 25, 27, 37, 41
Very Large Telescope (VLT) 27, 28, 41
International Geophysical Year (IGY) 29
International Institute of Science and Technology (IIST) 13
International Thermonuclear Experimental Reactor (ITER) 39, 42, 86, 88
international trade negotiations 318–20, 325
internationalization of research and development 110, 198–202, 248, 296, 304
inventions and integration 291–3, 293–9, 301, 302, 303, 304, 305, 306–10, 310–11
Ireland, human resource policy for foreign workers 250
Irwin, D.A. 134
ISI Highly Cited Researcher database 220
IST-RTD projects 168, 169–70
Jaff e, A.B. 129, 298
Japan 102, 128, 199, 218, 225, 242, 251, 264, 265, 267, 268, 296
Jason programme for ocean observation 30
JESSI programme 33
Jewkes, J. 151
Joint European Torus (JET) 66
Joint programming 53, 57, 74, 95, 176
Joint Research Centre (JRC) 12, 15, 16, 26
Joint Technology Initiative(s) (JTI(s)) 21–2, 33–4, 40, 81, 88, 156
Joye, F. 25
Jozef Stefan Institute 165
juste retour 30, 32, 39, 47, 49, 51, 75, 107, 108, 115
kaleidoscope comparative advantages 332–3, 337
Kamien, M.I. 150
Karlesky, J.J. 11
Karsenty, J.-P. 32
Kendrew, J. 26, 37
Killian, James 13
Kim, S. 322
King, A. 8, 9, 11
King, D.A. 216, 217
Klenow, P.J. 134
Klette, T.J. 134
knowledge diffusion 170–71
knowledge-based economy 38, 73, 96, 101, 107, 152, 162, 211, 214, 224, 237, 314, 350
Krige, J. 13, 71
Krugman, P. 336
Krull, W. 5
Kuhlmann, S. 331
Kwan, C.H. 102
Kyvik, S. 283
Laherrère, J. 333
Lall, S. 332
Larédo, P. 19
Large Hadron Collider (LHC) 25, 37, 41
Larsen, I.M. 283
lead markets 316
Lisbon European Council 312, 325
Ljubljana Process 339, 341, 348
Llewelyn-Smith, C. 41
Lokshin, P. 136
Lorenzi, J.-H. 209
Louis, F. 72, 73
Lowell, B.L. 322
Lucas, R.E. 322
Ludwig, A. 334, 336
Lundvall, B.-Å. 4, 20, 102, 110, 165, 317
Lüst, Reimar 37
<table>
<thead>
<tr>
<th>Term</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maastricht Treaty</td>
<td>17, 34, 67, 68, 70, 162</td>
</tr>
<tr>
<td>Malerba</td>
<td>165, 168</td>
</tr>
<tr>
<td>Mansfield</td>
<td>129, 227</td>
</tr>
<tr>
<td>Maréchal</td>
<td>14</td>
</tr>
<tr>
<td>Marey</td>
<td>136</td>
</tr>
<tr>
<td>Marie Curie</td>
<td>87, 89</td>
</tr>
<tr>
<td>MARINERA</td>
<td>50</td>
</tr>
<tr>
<td>market failure(s)</td>
<td>131–2, 155, 156, 164</td>
</tr>
<tr>
<td>Marshall Plan</td>
<td>8</td>
</tr>
<tr>
<td>Martin</td>
<td>129</td>
</tr>
<tr>
<td>Mas-Colell</td>
<td>224</td>
</tr>
<tr>
<td>Maskin</td>
<td>127, 134</td>
</tr>
<tr>
<td>Mathieu</td>
<td>202, 224</td>
</tr>
<tr>
<td>‘Medea +’</td>
<td>33</td>
</tr>
<tr>
<td>Medium-Term Economic Policy Committee</td>
<td>14</td>
</tr>
<tr>
<td>Meertens</td>
<td>257, 285</td>
</tr>
<tr>
<td>megascience</td>
<td>24–6, 28, 177, 265, 333</td>
</tr>
<tr>
<td>mega-trends</td>
<td>332–3, 333, 333–4, 336, 337</td>
</tr>
<tr>
<td>Meister</td>
<td>320</td>
</tr>
<tr>
<td>Meri</td>
<td>110, 111</td>
</tr>
<tr>
<td>meteorology</td>
<td>30</td>
</tr>
<tr>
<td>Meyer-Krahmer</td>
<td>5</td>
</tr>
<tr>
<td>Microsoft</td>
<td>248</td>
</tr>
<tr>
<td>military rockets</td>
<td>9</td>
</tr>
<tr>
<td>military technology</td>
<td>11, 25, 29, 34, 35, 37, 40, 66, 316</td>
</tr>
<tr>
<td>Mitterrand</td>
<td>31, 32, 41</td>
</tr>
<tr>
<td>Miyagiwa</td>
<td>322</td>
</tr>
<tr>
<td>mobility</td>
<td>79, 82–3, 89, 110, 111, 198, 201, 239, 246–8, 249–52, 335</td>
</tr>
<tr>
<td>Moed</td>
<td>257, 262, 285, 286</td>
</tr>
<tr>
<td>Moen</td>
<td>136</td>
</tr>
<tr>
<td>Mohnen</td>
<td>136</td>
</tr>
<tr>
<td>molecular biology</td>
<td>26–7</td>
</tr>
<tr>
<td>Monnet</td>
<td>26</td>
</tr>
<tr>
<td>Motohashi</td>
<td>182</td>
</tr>
<tr>
<td>Mountford</td>
<td>322</td>
</tr>
<tr>
<td>Mowery</td>
<td>150</td>
</tr>
<tr>
<td>Mrvar</td>
<td>268</td>
</tr>
<tr>
<td>Mueller</td>
<td>151</td>
</tr>
<tr>
<td>Muldur</td>
<td>95</td>
</tr>
<tr>
<td>multilateral research cooperation policies</td>
<td>46–7, 56–7</td>
</tr>
<tr>
<td>multinational enterprises (MNEs)</td>
<td>102, 116, 118, 120, 121, 179, 199, 202, 237, 248, 293, 298, 319, 320, 332, 340, 344</td>
</tr>
<tr>
<td>Mustar</td>
<td>19</td>
</tr>
<tr>
<td>Nanoelectronics Technology</td>
<td>2020 40</td>
</tr>
<tr>
<td>nanotechnology</td>
<td>301, 303–4</td>
</tr>
<tr>
<td>Narin</td>
<td>129</td>
</tr>
<tr>
<td>national innovation systems</td>
<td>317, 323</td>
</tr>
<tr>
<td>national policies, coordination of</td>
<td>64, 65–7, 68–9</td>
</tr>
<tr>
<td>National Reform Programmes</td>
<td>89</td>
</tr>
<tr>
<td>national research systems</td>
<td>108–9, 110, 119–20, 162</td>
</tr>
<tr>
<td>natural resources</td>
<td>116, 332–4, 348</td>
</tr>
<tr>
<td>Nederhof</td>
<td>286</td>
</tr>
<tr>
<td>Nelson</td>
<td>127, 148, 150, 317</td>
</tr>
<tr>
<td>neo-Schumpeterian hypotheses</td>
<td>146–7, 147–8, 148–51</td>
</tr>
<tr>
<td>Netherlands Organisation for Applied Scientific Research (TNO)</td>
<td>19</td>
</tr>
<tr>
<td>Networks of Excellence (NoEs)</td>
<td>79, 108, 156, 163, 164, 166, 169, 170, 233</td>
</tr>
<tr>
<td>NEW OSH ERA</td>
<td>50</td>
</tr>
<tr>
<td>Newman</td>
<td>268</td>
</tr>
<tr>
<td>New Technology-Based Firms</td>
<td>(NTBFs) 209</td>
</tr>
<tr>
<td>New Zealand</td>
<td>218, 228, 229, 233, 245, 307, 308</td>
</tr>
<tr>
<td>Nicolaidis</td>
<td>24</td>
</tr>
<tr>
<td>non-profit institutions</td>
<td>7, 41, 337, 338</td>
</tr>
<tr>
<td>Nooteboom</td>
<td>154</td>
</tr>
<tr>
<td>Nordic cooperation</td>
<td>18, 47, 50, 54–6, 57, 54–6, 57, 60, 61</td>
</tr>
<tr>
<td>North Atlantic Treaty Organization (NATO)</td>
<td>13, 32</td>
</tr>
<tr>
<td>North-South research partnerships</td>
<td>324</td>
</tr>
<tr>
<td>Norway</td>
<td>47</td>
</tr>
<tr>
<td>nuclear research</td>
<td>12–13, 24–5, 28, 39, 86</td>
</tr>
<tr>
<td>oceanography</td>
<td>37</td>
</tr>
<tr>
<td>Odagiri</td>
<td>108</td>
</tr>
<tr>
<td>OECD</td>
<td>Brooks Report 9, 10, 17</td>
</tr>
<tr>
<td></td>
<td>Frascati Manual 9</td>
</tr>
<tr>
<td></td>
<td>The Research System 9, 10</td>
</tr>
</tbody>
</table>
off-shoring 248, 332–3, 337
Okada, Y. 108
Okamuro, H. 181, 182
open innovation 20, 181, 185
Open Method of Coordination (OMC) 74, 93, 103, 104, 112, 123
Organisation for Economic Co-operation and Development (OECD) 8–10, 11, 14
Organisation for European Economic Cooperation (OEEC) 8, 9
Organization of the Petroleum Exporting Countries (OPEC) 346
Orsi, F. 118
O'Sullivan, M. 202
Panagariya, A. 332
pan-European infrastructures 58, 79, 88, 354
Pandolfi, F. 76
Papon, P. 6, 24–43
Pascoe, G. 151
patent citations 129, 168, 298–9, 300, 310
Patent Cooperation Treaty (PCT) 293
patents 118, 130–31, 292–3, 298, 302–4, 305
Pavitt, K. 19, 41, 150, 232–3
Pechke, A. 31
Philips (electronics firm) 9
Philips, A. 150
physics research 217, 271, 274, 277
Piganiol 8, 14
Pisani-Ferry, J. 104, 105, 109, 114
Pochet, P. 112
policy coordination 64, 65–7, 68–9, 95, 346–7, 355–6
Policy Research in Engineering, Science and Technology (PREST) 14
population, ageing 211, 314, 332, 333, 337, 338, 343, 346
Porter, M. 20
post-war research 3–7, 7–12, 12–17, 18, 19–20
Powell, W.W. 152
private research, public funding 131–6, 137
procurement 19, 20, 34, 91, 178, 226, 227, 316, 319, 338
public good 117–18
public laboratories 304, 305
publications 215–17, 256, 257–8, 265–8
R&D intensity 109, 149, 193–7, 198, 200, 202–10, 212, 225, 227, 229
RACE 16
Reagan, Ronald 32
Reger, G. 199
regional knowledge diffusion 170–71
Regions of Knowledge 84
Reichlin, P. 322
Reinthaler, V. 133
‘Relance européenne’ 32
Research and Development in Advanced Communications in Europe (RACE) 16
research and development internationalization 110, 198–202, 248, 296, 304
research infrastructure(s) 5, 14, 15, 16, 21, 24, 25, 26, 27, 28, 36, 37, 39, 40, 42, 43, 45, 46, 50, 58, 59, 65, 73, 79, 80, 88, 132, 160, 162, 177, 178, 179, 180, 201, 202, 226, 250, 286, 336, 337, 340, 344, 349, 353, 354
research potential 52, 53, 84, 334
Risk-sharing Finance Facility (RSFF) 212
<table>
<thead>
<tr>
<th>Entry</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index</td>
<td>367</td>
</tr>
<tr>
<td>rockets 29–30</td>
<td></td>
</tr>
<tr>
<td>Rodrigues, M.J. 73, 74, 104, 105</td>
<td></td>
</tr>
<tr>
<td>Roediger-Schluga, T. 165</td>
<td></td>
</tr>
<tr>
<td>The Role of the Universities in theEurope of Knowledge 86</td>
<td></td>
</tr>
<tr>
<td>Romer, P.M. 127</td>
<td></td>
</tr>
<tr>
<td>Rosenberg, N. 317</td>
<td></td>
</tr>
<tr>
<td>Rossi, P. 24</td>
<td></td>
</tr>
<tr>
<td>Rowley, T. 154</td>
<td></td>
</tr>
<tr>
<td>Ruberti, A. 68, 69, 71–2</td>
<td></td>
</tr>
<tr>
<td>Russian Federation 59, 86, 196, 218, 222, 238, 258, 260, 261, 262, 264, 265, 267, 268, 287, 321</td>
<td></td>
</tr>
<tr>
<td>Rustichini, A. 322</td>
<td></td>
</tr>
<tr>
<td>Saarenheimo, T. 336</td>
<td></td>
</tr>
<tr>
<td>SAFEFOODERA 50</td>
<td></td>
</tr>
<tr>
<td>Sakakibara, M. 181, 183</td>
<td></td>
</tr>
<tr>
<td>Salomon, J.-J. 34</td>
<td></td>
</tr>
<tr>
<td>Salter, A.J. 129</td>
<td></td>
</tr>
<tr>
<td>Santoro, M.D. 181</td>
<td></td>
</tr>
<tr>
<td>Sapir, A. 104, 105, 109, 114</td>
<td></td>
</tr>
<tr>
<td>satellites 16, 29, 30, 31, 35, 39, 41, 42, 190</td>
<td></td>
</tr>
<tr>
<td>Saturn-C 29</td>
<td></td>
</tr>
<tr>
<td>Saunier, G. 32</td>
<td></td>
</tr>
<tr>
<td>scale xviii, 53, 86, 108, 142–6, 147, 148, 149, 150, 151–2, 155–6, 178, 313, 314, 318, 319, 323, 355</td>
<td></td>
</tr>
<tr>
<td>Scherer, F.M. 148, 149, 150, 151</td>
<td></td>
</tr>
<tr>
<td>Schilling, M.A. 153</td>
<td></td>
</tr>
<tr>
<td>Schuman, Robert 26</td>
<td></td>
</tr>
<tr>
<td>Schumpeter, J.A. 113, 142, 146, 147, 148–9, 151</td>
<td></td>
</tr>
<tr>
<td>Schwartz, N.L. 150</td>
<td></td>
</tr>
<tr>
<td>Scientific and Technical Research Committee (CREST) 15, 40, 65, 66–7, 81</td>
<td></td>
</tr>
<tr>
<td>scientific performance 256–8, 258–61, 261–5, 265–74, 275–82, 282–6, 286–7</td>
<td></td>
</tr>
<tr>
<td>scientific visa 82</td>
<td></td>
</tr>
<tr>
<td>Scopus 258, 286, 287</td>
<td></td>
</tr>
<tr>
<td>Scott, J.T. 148, 151</td>
<td></td>
</tr>
<tr>
<td>Sebasta, L. 29</td>
<td></td>
</tr>
<tr>
<td>semiconductor sector 313, 316</td>
<td></td>
</tr>
<tr>
<td>Servan-Schreiber, J.-J. 11</td>
<td></td>
</tr>
<tr>
<td>services sector 313, 318–19</td>
<td></td>
</tr>
<tr>
<td>Setter, O. 134</td>
<td></td>
</tr>
<tr>
<td>Shanghai Academic Ranking of World Universities 220, 221, 222</td>
<td></td>
</tr>
<tr>
<td>Shrieves, R.E. 148</td>
<td></td>
</tr>
<tr>
<td>SINAPSE 82</td>
<td></td>
</tr>
<tr>
<td>Singapore 318–19</td>
<td></td>
</tr>
<tr>
<td>Single European Act (SEA) 17, 67</td>
<td></td>
</tr>
<tr>
<td>single market 82, 91, 96, 110, 111, 114, 117, 173, 311, 313, 314, 315, 324</td>
<td></td>
</tr>
<tr>
<td>single labour market for researchers 116–17</td>
<td></td>
</tr>
<tr>
<td>Six Countries Programme 20</td>
<td></td>
</tr>
<tr>
<td>skilled labour mobility 82–3, 111, 246–8, 249–52, 321–2, 335</td>
<td></td>
</tr>
<tr>
<td>small and medium-sized companies (SMEs) 19, 33, 37, 40, 42, 59, 81, 111, 148, 169–70, 179, 209, 293, 344</td>
<td></td>
</tr>
<tr>
<td>small world 166</td>
<td></td>
</tr>
<tr>
<td>Smith, B.L.R. 11</td>
<td></td>
</tr>
<tr>
<td>SNOWMAN think tank 51</td>
<td></td>
</tr>
<tr>
<td>Sobotka, T. 333</td>
<td></td>
</tr>
<tr>
<td>social sciences, research performance measurement 282–6</td>
<td></td>
</tr>
<tr>
<td>social systems of innovation 108–9</td>
<td></td>
</tr>
<tr>
<td>Soete, L. 101, 149, 312–25, 337</td>
<td></td>
</tr>
<tr>
<td>Solana, Javier 42</td>
<td></td>
</tr>
<tr>
<td>Soligo, R. 322</td>
<td></td>
</tr>
<tr>
<td>South Korea 86, 195, 197, 201, 218, 228, 229, 233, 238, 251, 307, 308</td>
<td></td>
</tr>
<tr>
<td>Soviet Union 13, 28, 29, 32, 261, 312</td>
<td></td>
</tr>
<tr>
<td>Space Council 31</td>
<td></td>
</tr>
<tr>
<td>space research 4, 6, 13, 17, 19, 26, 28–32, 36, 37, 38, 39, 42, 48, 66, 71, 107, 110, 122, 190, 204–6, 207, 226, 226, 353, 354</td>
<td></td>
</tr>
<tr>
<td>specialization 143, 224, 226, 304, 306–8, 311, 316</td>
<td></td>
</tr>
<tr>
<td>Specific International Scientific Cooperation Activities (INCO) programme 86</td>
<td></td>
</tr>
<tr>
<td>spillovers 128, 200, 298, 320</td>
<td></td>
</tr>
<tr>
<td>Spinelli, Altiero 14, 15, 16, 65</td>
<td></td>
</tr>
<tr>
<td>Sputnik 7, 11, 13, 29</td>
<td></td>
</tr>
<tr>
<td>Stability and Growth Pact (SGP) 114, 355</td>
<td></td>
</tr>
<tr>
<td>Stark, O. 322</td>
<td></td>
</tr>
<tr>
<td>start-ups 81</td>
<td></td>
</tr>
<tr>
<td>state aid 81, 82</td>
<td></td>
</tr>
</tbody>
</table>
Steil, B. 150
Stern, N. 334
Stigler, G.J. 132
Strasser, B. 25
Strategic Defense Initiative (SDI) 32
Structural Funds (EU) 54, 121, 123, 347
students, foreign 239–43
subsidiarity 14, 65, 67, 120, 314
sustainable development 321, 340, 342, 345, 346
Sweeney, G. 20
System(ic) failure(s) 155, 156
Szilard, Leo 42
Taiwan 195, 201, 238
Tassey, G. 149
tax incentives 81, 92, 132, 136
Technologie, emploi et croissance (G8 research group) 32
technology intensity 202
low-tech, 203, 204, 211, 212
medium-high-tech 202, 203, 204, 206, 207, 237
medium-low-tech, 202, 203, 204
technology life cycles 149, 155–6
Technology Platforms 81, 86, 88
Telò, M. 74

thematic networks 33, 70–71
thermonuclear fusion 12–13, 15, 39, 42, 70 86, 88
third countries 82, 85, 86, 342, 343
Thursby, J. 202
Thursby, M. 202
Tiebout, C. 339
Tijssen, R.J.W. 275
Tinjod, N. 29
Tishler, A. 134
Toole, A.A. 129, 134
Torres Salinas, D. 285
Towards a European Research Area 162
Towards a More Effective Use of Tax Incentives in Favour of R&D 81
Towards Joint Programming in Research – Working Together to Tackle Challenges More Effectively 177
trade negotiations 318–20
Trade Related Aspects of Intellectual Property Rights (TRIPS) 340
Trajtenberg, M. 309
transnational collaboration 176–80, 180–84, 184–5, 190
Treaty of Amsterdam 42
Treaty of Lisbon xvii, 38, 42, 101–24, 187
Treaty of Maastricht 17, 34, 67, 68, 70, 76, 162
Treaty of Paris 26
Treaty of Rome 39, 173, 318
Turkey 133, 276, 279–80, 281
Uçdoğru, Y. 133
United Kingdom
Higher Education Funding Councils 6
highly cited researchers 218
human resource policy for foreign workers 251
industrial technology funding 227
Ministry of Education 6
Ministry of Technology 5
Prime Minister’s Office 6
Index

post-war research 5–6
research and development 296, 320, 337
Royal Society 15
Universities 6, 223, 239, 245
University Funding Council 6
US doctorate recipients 243
Wellcome Trust 6
uncertainty 16, 116, 127, 134, 146, 148, 150, 153, 155, 177, 181, 336
UNESCO - Science Policy Studies and Documents 10, 22
United Nations Conference on Trade and Development (UNCTAD) 199, 202, 238, 253, 254
United Nations Educational, Scientific and Cultural Organisation (UNESCO) 10, 24
United States
Atomic Energy Commission 11
citations 216–17, 218, 219
c-o-inventorship 296
Defense Advanced Research Projects Agency (DARPA) 11, 34–5, 325
Department of Agriculture 11
Department of Defense 11
Department of Energy 11, 15
Energy Research and Development Agency 11
highly cited researchers 217, 218, 219, 223
human resources 227, 242–3, 245–6, 246, 247, 251, 267, 268
MIT 11, 12, 13
National Aeronautics and Space Administration (NASA) 29, 30, 240, 242, 253, 325
National Institutes of Health (NIH) 11, 242, 254, 325
National Ocean and Atmospheric Administration (NOAA) 30
National Science Foundation (NSF) 11, 14, 234, 242, 243, 244, 254
Office for Coal Research 11
post-war science and technology 4, 11–12, 28, 314
public science funding 129
publications 216–17
R&D funding 128, 199, 204–8, 209, 225, 226, 227
R&D internationalization 200, 201, 202
research organizations 11–12
research profile 284
research system 102, 110, 120
research universities 11, 222
Route 128 11–12, 13
scientific size 260, 261
scientific strength 264, 265
semiconductor industry 316
Silicon Valley 11
Stanford Research Park 11
Strategic Defense Initiative (SDI) 32
V2 rockets 29
van Pottelsberghe, B. 136, 182, 202, 226, 296
Van Reenen, J. 132, 136
venture capital 82
Verspagen, B. 130, 166, 320
Very Large Telescope (VLT) 27
Vidal, J.-P. 322
virtual pot (funding) 47, 54, 59
Von Braun, Wernher 28–9
wages of researchers 133–4
Wagner, C. 165
Walker, W. 19
Watts, D.J. 166
Web of Science (WoS) 258, 285, 287
Wedig, G.J. 148
Weinberger, S. 35
Weisskopf, Peter 42
Weisskopf, Victor 26, 42
Western European Union (WEU) 34
Wier, M. 338
Winston, C. 132
Wollf, G.B. 133
women, role in research 83
Wong, K.-Y. 322
Wood Material Science Research Programme 47
World War II 3, 4, 5, 6, 123, 193, 222, 312, 314, 353

Henri Delanghe, Uğur Muldur and Luc Soete - 9781849803281
Downloaded from Elgar Online at 04/21/2019 02:02:56PM via free access
<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yip, C.K.</td>
<td>322</td>
</tr>
<tr>
<td>Young, A.</td>
<td>227</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>25, 34</td>
</tr>
<tr>
<td>Zarnikau, J.</td>
<td>337</td>
</tr>
<tr>
<td>Zeitlin, J.</td>
<td>112</td>
</tr>
<tr>
<td>Zucker, L.G.</td>
<td>129</td>
</tr>
<tr>
<td>Zuniga, M.P.</td>
<td>182</td>
</tr>
</tbody>
</table>