Index

adaptability 135
advertising model of open source software 114–15
Ahuja, G. 101
Allen, K. R. xiii, xiv
alliances see networks
Amazon.com 116
American Electronics Association 15
‘angels’ see business angels
Apache Foundation 109
Apple 28
aPress 112
Baines, S. 98
BAMS Angels Fund 75–7
Bangladesh, microfinance in 2
BasecampHQ 114
Becattini, Giacomo 11
Befaa, Jean-Louis 35
Belgium, business angels in 75–7
Benetton 12
Berkeley Software Distribution (BSD) 116
Berkeley University see UC Berkeley
biotechnology 15–16
BitRock 115
brain circulation 4
brain drain 19, 142–3
breakthrough innovation 136
Brusco, Sebastiano 11, 12
Burgelman, R. A. xi
Burt, R. S. 85, 86, 102
Bush, Vannevar 26–7
business angels xvi, 8, 63, 64–5, 67–9
case study of BAMS Angels Fund 75–7
future of 78–9
management 77–8
structure of funds
compensating managers 73
equal versus free investment amounts 72–3
investment process and decision-making 70–72
legal/fiscal structure 74–5
member-led versus manager-led organizations 69–70
relationship with angel networks 74
business concept xiv–xv
business model xv, xviii
New Economy business model 9
using open source software 110–19
business/entrepreneurial opportunities xi, xiv–xv
capital
social 83–7, 95–6
venture capital 2, 7–8, 53, 60, 63–4, 67
see also business angels
Carpenter, Marie 7
Casson, M. xi
Chell, E. 98
China 19–20
Christensen, Clayton M. 122, 130
CollabNet 112
collaboration see networks
communitarian policies for R&D 29–32
compensation systems 6–7
competitiveness, technological districts 45
Competitiveness Poles initiative 33, 34, 37
consulting services, open source software and 117–18
contingency argument 98–101
contingent claims analysis (CCA) 128
co-operatives 12
corporations 64
building a poised organization 135–7
social capital 83–7, 95–6
see also small and medium enterprises (SMEs)
cultural embeddedness 94–5
Cygnum Solutions 107

Day, D. xii
decision-making, business angels and
70–72
Denmark 140–41
Design Continuum 90
development agencies 1
developmental state 26, 28–9, 32–51
discounted cash flow (DCF) 128
discoveries xiii, xvii
disruptive innovation 131, 136
Doriot, Georges 16
dosi, Giovanni 80
Drupal 115, 119
dual license model of open source
software 113
dynamics for technological
entrepreneurship 61–5
Dyson, James 89

early stage investing see business
angels; venture capitalists
Eclipse 108
ecosystem dynamics for technological
entrepreneurship 61–5
Edison, Thomas 89, 90
education systems 17–18, 20
etrepreneurship education
140–44
Intel–UC Berkeley Global
Entrepreneurship Education
Initiative 140, 145–9
Elbaum, Bernard 11
embedding model of open source
software 116–17
entrepreneurship xi, 1–3, 53, 62–3
business concept xiv–xv
business model xv
education 140–44
Intel–UC Berkeley Global
Entrepreneurship Education
Initiative 140, 145–9
entrepreneurial functions in
innovating firm 3–8
entrepreneurial management xii
entrepreneurial/business
opportunities xi, xiv–xv
nation-states 8–20

networks and 80–82, 83–7, 90–104
combining strong/weak tie
correlation and/or internal/
external network sources
101–3
contingency argument 98–101
importance of strong external ties
95–8
importance of weak external ties
and structural holes 92–5
teams 94

technological entrepreneurship
xi–xvii, 61–5
Etzkowitz, Henry 27, 28
European Union (EU)
brain drain in 142–3
Lisbon strategy 51
poverty in 141
R&D policy 29–32
unemployment in 140–41
Eurotech Group xv, xvi, 125–7, 133
minority interests 127–9

Fabius, laurent 35
Feldman, Maryann P. 4
finance xvi, 2
early stage investing see business
angels; venture capitalists
Fink, M. 111
Firefox 108
fiscal structures, business angels and
74–5
foreign direct investment (FDI) 18–19
Founder 19
France, government innovation policies
32–5
Free Software Foundation (FSF) xvi,
107
Friedman, Thomas L. 127

Gabbay, S. M. 83, 84
Gabriel, R. 110
Gartner 131
Genentech 15
Geus, Arie de 122
Gimein, M. 7
Glimstedt, Henrik 6
Goldman, R. 110
Gompers, Paul 4
Google 114, 129
government and the state xvii
innovation policies 26, 28–9
France 32–5
Japan 35–7
Grameen Bank 2
Granovetter, M. S. 85

Hargadon, A. 87, 88, 89, 90
Hashemi, Syed M. 2
Hesterly, W. S. 99
Hewlett-Packard (HP) 16, 19
high-tech industries
high-tech districts 36, 44–6
technological waves in 123–5
Hite, J. M. 99
Hitt, M. A. xi
Hossain, Farhad 2
hosted service model of open source
software 113–14
hype cycle 131–2
IBM xiii, 107, 117, 118, 129
IDEO 90
incremental innovation 136
India
education in 17–18
entrepreneurship in 19, 20
industrial districts 10–13
initial public offerings (IPOs) 7, 8, 93
innovation xvii, 53, 65–6
areas of greatest innovation 64–5
communitarian policies for R&D 29–32
disruptive 131, 136
entrepreneurial functions in innovating firm 3–8
government policies 26, 28–9
France 32–5
Italy 37–51
Japan 35–7
multi-option strategy 129–35
networks and 80–82, 83–7, 90–104
new role of actors involved in 28–9
small and medium enterprises (SMEs) 39, 80–83
knowledge brokering and 87–90
networks 90–103
social capital 83–7
triple helix model 26–8, 29, 39

universities as engines of innovation 54–5
Intel xvi, 18, 19
Intel–UC Berkeley Global Entrepreneurship Education Initiative 140, 145–9
intellectual property rights 15
investment xvii
early stage investing see business angels; venture capitalists
foreign direct investment (FDI) 18–19
initial public offerings (IPOs) 7, 8, 93
stock options 6–7
technological districts and 47
Italy
innovation in 37–51
joint public–private research labs 41–4
operative actions 39–40
strategic actions 38–9
support for creation of new high-tech enterprises 40–41
support for large research programmes 49–51
Third Italy 11–13
Japan
education in 17
entrepreneurship in 13, 16
government innovation policies 35–7
institutions 9–10
R&D in 35–6
Jarillo, J. C. xii
JasperSoft 112
Johnson, Chalmers 13
joint public–private research labs 41–4
Joomla 119

Kirzner, I. xi
Klepper, Steven 4
Kline, D. xiii
knowledge 38
brokering 87–90
knowledge clusters 36, 37
Korea (South)
education in 17
entrepreneurship in 19, 20
Krackhardt, D. 85
<table>
<thead>
<tr>
<th>Name</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krishnamurthy, S.</td>
<td>111</td>
</tr>
<tr>
<td>Krugle</td>
<td>112</td>
</tr>
<tr>
<td>labour market</td>
<td></td>
</tr>
<tr>
<td>compensation systems 6–7</td>
<td></td>
</tr>
<tr>
<td>entrepreneurship and 10</td>
<td></td>
</tr>
<tr>
<td>labour mobility 5–6</td>
<td></td>
</tr>
<tr>
<td>Lazanick, William</td>
<td>6, 7, 9, 10, 11</td>
</tr>
<tr>
<td>learning 87</td>
<td></td>
</tr>
<tr>
<td>Lee, C.</td>
<td>80</td>
</tr>
<tr>
<td>Leenders, R. T. A. J.</td>
<td>83, 84</td>
</tr>
<tr>
<td>legal structures, business angels and 74–5</td>
<td></td>
</tr>
<tr>
<td>Lenovo</td>
<td>19</td>
</tr>
<tr>
<td>Leonardo da Vinci</td>
<td>xiii</td>
</tr>
<tr>
<td>Linux</td>
<td>107, 111, 117, 120</td>
</tr>
<tr>
<td>Lisbon Strategy</td>
<td>51</td>
</tr>
<tr>
<td>McEvily, B.</td>
<td>97, 98</td>
</tr>
<tr>
<td>Mallick, Ross</td>
<td>2</td>
</tr>
<tr>
<td>management</td>
<td></td>
</tr>
<tr>
<td>business angels 69–70, 73, 77–8 entrepreneurial xii</td>
<td></td>
</tr>
<tr>
<td>markets</td>
<td></td>
</tr>
<tr>
<td>absorption of innovation by 130</td>
<td></td>
</tr>
<tr>
<td>labour see labour market</td>
<td></td>
</tr>
<tr>
<td>Marshall, Alfred</td>
<td>10, 11</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology (MIT; USA)</td>
<td>xiv, 16–17, 53, 54–5, 65–6</td>
</tr>
<tr>
<td>Deshpande Center</td>
<td>57</td>
</tr>
<tr>
<td>economic impact 59–60</td>
<td></td>
</tr>
<tr>
<td>Enterprise Forum</td>
<td>58</td>
</tr>
<tr>
<td>Entrepreneurship Center</td>
<td>57</td>
</tr>
<tr>
<td>Entrepreneurship Competition</td>
<td>57–8</td>
</tr>
<tr>
<td>external connection points 58–9</td>
<td></td>
</tr>
<tr>
<td>Industrial Liaison Program (ILP)</td>
<td>56</td>
</tr>
<tr>
<td>technological entrepreneurship and 62</td>
<td></td>
</tr>
<tr>
<td>Technology Licensing Office</td>
<td>56–7</td>
</tr>
<tr>
<td>Venture Monitoring Service (VMS)</td>
<td>58</td>
</tr>
<tr>
<td>Medicare/Medicaid (USA)</td>
<td>15</td>
</tr>
<tr>
<td>Menon, T.</td>
<td>103</td>
</tr>
<tr>
<td>microelectronics</td>
<td>2</td>
</tr>
<tr>
<td>microfinance</td>
<td>2</td>
</tr>
<tr>
<td>Microsoft</td>
<td>129</td>
</tr>
<tr>
<td>minority interests 127–9</td>
<td></td>
</tr>
<tr>
<td>mobility of labour 5–6</td>
<td></td>
</tr>
<tr>
<td>Morales, Christian</td>
<td>146</td>
</tr>
<tr>
<td>Motorola</td>
<td>18, 19</td>
</tr>
<tr>
<td>Mozilla Foundation</td>
<td>114, 118</td>
</tr>
<tr>
<td>multinational corporations (MNCs)</td>
<td>18–19</td>
</tr>
<tr>
<td>multi-option strategy</td>
<td></td>
</tr>
<tr>
<td>building a poised organization 135–7</td>
<td></td>
</tr>
<tr>
<td>business as risky business 122–3</td>
<td></td>
</tr>
<tr>
<td>Eurotech Group study</td>
<td>125–7</td>
</tr>
<tr>
<td>minority interests 127–9</td>
<td></td>
</tr>
<tr>
<td>innovation and 129–35</td>
<td></td>
</tr>
<tr>
<td>technological waves in high-tech industries 123–5</td>
<td></td>
</tr>
<tr>
<td>MySQL AB</td>
<td>112, 113</td>
</tr>
<tr>
<td>National Institutes of Health (NIH; USA)</td>
<td>14–15</td>
</tr>
<tr>
<td>National Research Council (NRC; USA)</td>
<td>14</td>
</tr>
<tr>
<td>National Venture Capital Association (USA)</td>
<td>15</td>
</tr>
<tr>
<td>Natuzzi</td>
<td>12–13</td>
</tr>
<tr>
<td>net present value (NPV)</td>
<td>128</td>
</tr>
<tr>
<td>NetBeans</td>
<td>108</td>
</tr>
<tr>
<td>networks xiv, xvii</td>
<td></td>
</tr>
<tr>
<td>angel networks 74</td>
<td></td>
</tr>
<tr>
<td>innovation and 80–82, 83–7, 90–104</td>
<td></td>
</tr>
<tr>
<td>combining strong/weak tie</td>
<td></td>
</tr>
<tr>
<td>contribution and/or internal/external network sources</td>
<td>101–3</td>
</tr>
<tr>
<td>contingency argument 98–101</td>
<td></td>
</tr>
<tr>
<td>importance of strong external ties</td>
<td>95–8</td>
</tr>
<tr>
<td>importance of weak external ties and structural holes 92–5</td>
<td></td>
</tr>
<tr>
<td>social capital 83–7, 95–6</td>
<td></td>
</tr>
<tr>
<td>New Economy business model</td>
<td>9</td>
</tr>
<tr>
<td>New Hampshire, University of 64</td>
<td></td>
</tr>
<tr>
<td>Nohria, N.</td>
<td>92</td>
</tr>
<tr>
<td>Novell</td>
<td>111</td>
</tr>
<tr>
<td>Oerlemans, L. A. G.</td>
<td>80</td>
</tr>
<tr>
<td>Open Source Initiative (OSI)</td>
<td>xvi, 108</td>
</tr>
<tr>
<td>open source software 107–8</td>
<td></td>
</tr>
<tr>
<td>business models using 110–19</td>
<td></td>
</tr>
<tr>
<td>starting new open source business</td>
<td>119–20</td>
</tr>
<tr>
<td>state of 108–9</td>
<td></td>
</tr>
<tr>
<td>toward commercial opportunities</td>
<td>109–10</td>
</tr>
</tbody>
</table>
Index

OpenLogic 115
OpenOffice 108
options 128
Oracle 112
O’Reilly 112

packaging model of open source software 115
patronage model of open source software 118–19

Pezzini, M. 12
Pfeffer, J. 103
poised organizations 135–7
Porter, Kelley 4
poverty 141
Powell, W. W. 87, 88
PowerGres 116
product lifecycle 123–4, 131–2
Raynor, Michael E. 122
real options approach (ROA) 128, 129
relational embeddedness 86, 100
research and development (R&D)
  communitarian policies 29–32
  joint public–private research labs 41–4
  knowledge brokering and 88
  support for large research programmes 49–51
research institutions, technological districts and 48
risk 122–3
Rivette, K. G. xiii
Route 128 6, 17
Rowley, T. 99, 100
Ruef, M. 93–4

salaries and compensation systems 6–7
Sarasvathy, S. D. xi
Saxenian, AnnaLee 4
Schmidt, Eric 28
Schumpeter, Joseph 1, 2, 53, 87
Shane, Scott 4
Shaw, George Bernard 123
Silicon Valley 2, 3, 6, 14, 15, 16, 53
skill shortage 140
Slovakia 141
small and medium enterprises (SMEs) 39, 80–83
  knowledge brokering and 87–90
networks 90–103
  social capital 83–7, 95–6
  social capital 83–7, 95–6
  social networks see networks
  sociology of entrepreneurship 5
Sony 130
spillovers 102
Stallman, Richard 107
Stanford University 2, 16
Stevenson, H. xii
stock options 6–7
structural embeddedness 86, 94, 100
Stuart, T. E. 91, 92
subscription model of open source software 111
SugarCRM 114
Sun Microsystems 110, 112, 113, 118
support and training model of open source software 112–13
Sutton, R. I. 87, 88, 90
Taiwan, entrepreneurship in 20
taxation 15
tools, entrepreneurial 94
technology xi
  brain drain 19, 142–3
  creation of xiii
  lifecycle 123–4, 131–2
  shortages of professionals in 140
technological districts 36, 44–9
technological entrepreneurship xi–xviii, 61–5
technological waves in high-tech industries 123–5
technology-push research 134
Terman, Frederick 16, 17
texas Instruments 18, 19
Thompson, David G. 137
Thornton, Patricia 5
TiVo 116
Torvalds, Linus 107
Toyota 13, 16
training
  entrepreneurship education 140–44
    Intel–UC Berkeley Global Entrepreneurship Education Initiative 140, 145–9
  training model of open source software 112–13
  triple helix model 26–8, 29, 39
UC Berkeley xvi, 140
Intel–UC Berkeley Global
Entrepreneurship Education Initiative 140, 145–9
unemployment 140–41
United Kingdom
entrepreneurship in 10–11, 12
social capital in 96
United Nations
Development Programme (UNDP) 2
Industrial Development
Organization (UNIDO) xvi
United States of America
entrepreneurship in 2, 13, 14–17
institutions 9
New Economy business model 9
unemployment in 141
venture capitalists in 7–8, 53, 60
work experience programmes 4
universities xiv, xvii, 28
economic impact 59–60
as engines of innovation 54–5
research and 51
technological districts and 45, 48–9
technological entrepreneurship and 62
see also individual institutions
Utomi, Pat 1
Uzzi, B. 85
value
creation of xv
net present value (NPV) 128
Venkatraman, S. xi
venture capitalists 2, 7–8, 53, 60, 63–4, 67
see also business angels
Wahid, Abu N. M. 2
Wal-Mart 13
Weber, S. 111
Weick, K. E. 87
women, microfinance and 2
Yahoo 114
Yli-Renko, H. 95, 96
Zaheer, A. 97, 98
Zimbra 108