Index

academia–government–industry triple helix see university-run enterprise to regional IT industrial clusters
Andreozzi, M. 86
Apple iPad 123, 126
Apple iPhone 2, 123, 126, 168
Autumn Guangzhou Export Commodities Fair (2004) 92

banks/banking 89–91, 94, 98
China Redevelopment Bank 100
Hong Kong 62
Import–Export Bank of China 100
World Bank 88
Beijing (and) 36, 71, 163
Beijing–Shanghai high-speed railway 1–2
Municipal Development and Reform Commission (BDRC) 20
Municipal Science and Technology Commission (BSTC) 20
regional innovation system of 16–17
research institutes in 21
Zhongguancun high-tech park 17
Bi, Y. 161, 162
Bohai Bay Area see also industry–science linkages in Bohai Bay area; regional dimension of innovation systems; regional innovation systems of Bohai Bay area
Beijing, Hebei and Tianjin provincial governments in 21
Commission of Economy and Information Technology 20
Department of Education 20
Development and Reform Commission 20
Finance Bureau 20
Ministry of Science and Technology (MOST) 19–20
R&D personnel in 22, 24
weak regional linkages in 36–7
Brazil 80
R&D facilities in 79
Business Week 104, 111
Byers, T. 86
case studies see Chinese manufacturing companies
catch-up strategy; Lenovo Group Ltd; high speed railway (HSR) development in China
Bahai Bay Area 16–38
Changhong 142–54
Huawei 103–20
Neusoft 67, 68, 71, 74–84
Northeastern University xix, 69–71, 73, 81
Pearl River Delta 41–64
photo voltaic industries see solar photovoltaic industry
Richen 162–3
Spreadtrum 123–37
Suntech-Power 87, 90, 93, 95, 99
Tencent 158, 159–60, 162–4, 167
China
3G service licences 135
Catalog of Chinese High Technology Products for Export (2006) 100
Communist Party of China, Central Committee of 2–3 see also main entry
computerization of government in 78
delay in 3G market development in 133
domestic feed-in (FIT) incentive mechanism 98–9

Claudio Petti - 9780857938992
Downloaded from Elgar Online at 03/29/2019 12:59:53PM via free access
Technological entrepreneurship in China

- Drive for indigenous innovation
- Early printing techniques
- Export and Credit Insurance Corporation
- Grants of hukou incentives
- High speed rail in China
- International Hi-tech Fair
- Hundred Talent Programme
- ICT, rapid growth of
- Spreadtrum
- Import–Export Bank of 100
- Intellectual property rights
- Ministry of Agriculture (MOA)
- Ministry of Information Industry of China
- Ministry of Science and Technology (MOST)
- Mobile 135
- Patent filing in China
- PV industry in China
- Rare earth metal (REM) holdings in China
- Redevelopment Bank
- Shenzhen University Park
- State Development Planning Commission (SDPC)
- State Economic and Trade Commission (SETC)
- State Education Commission
- State Intellectual Property Office (SIPO)
- Suntech-Power PV module manufacturing company
- Technology and Information Department
- Transnational communities
- Twelfth Five-Year Plan and green technology
- Unicom
- University industry relations
- University-run enterprises (UREs)

Weak protection of IPR in China, see also intellectual property rights

- Chinese Academy of Sciences (CAS)
- Institute of Computing Technology (ICT)
- Institute of Energy Conservation
- New Technology Development Company (NTC)
- Shenzhen Institute of Advanced Technology (SIAT-CAS)

Chinese Entrepreneurs, see also Ren, Z.

- Chinese manufacturing company’s catch-up strategy
- Talent’s creative role identity management
- Communist Party of China, Central Committee of (CCCPC)
- Decision on the Reform of S&T System (1985)
- Computing Technology Institute

Economist, The 2010 Corporate Use of Innovation Award

- Ederer, M. ix
- Electronics firms, see upgrading strategies of electronics firms
- Equipment manufacturing orders (OEM)
- European Commission
- European Union (EU)
- Europe 2020 strategy/Innovation Union initiative
- Global financial crisis

Fushun Steel Corporation

- Gao, S-J. 123
- Germany (and) 34, 91, 105
- College of Architecture (Berlin, 1799)
- Feed-in-tariff (FIT) public incentives mechanism
- High speed rail in China
- Industrial Technology Research
- Global financial crisis

Claudio Petti - 9780857938992
Downloaded from Elgar Online at 03/29/2019 12:59:53PM via free access
global market(s) 7–8, 60–61, 88, 99, 107
leader 111
share 109
globalization 108, 114, 118
Guangdong 21–3, 37, 41, 62, 89, 167
innovation system 43–51
comparison with Hong Kong 50–51
technological activities in 45
surge in patent applications from 45–6
Guangzhou 163
Export Commodities Fair (2004) 92
Institute of Energy Conversion (CAS) 95
University 86
Gutenberg xii–xiii
and movable-type printing xii
Hebei 16, 19, 21–3, 30
high speed railway (HSR) development in China (and) 1, 9–14
1994 Railway Technology Policy revisions 10
Chinese railway system before 2004 9–10
choice of HSR technology 10
economic feasibility and sustainability of HSR projects 14
government planning and development stages of HSR 11–13
localization and integration of imported HSR technology 13–14
Hong Kong 42–3, 162, 167
banks and trade credits 62
Basic Law 112
electronics firms in see upgrading strategies of electronics firms
firms in Guangdong 45 see also Guangdong
GCL-Poly Energy Holding Co. Ltd 96
innovation in 43, 62
Lenovo 6–8 see also Lenovo Group Limited
Science Park 61
Stock Exchange 6
Hu, X. 157
Huawei 42, 103–22, 123, 126, 136–7, 167, 170 see also Ren, Z.
2010 Annual Report 109
Basic Law 112–14
corporate culture of 109–16
core value system 112–14
cultural changes and global competition 111–12
ownership and governance structure 115–16
standardization of procedures and systems 114–15
as global force 118–19
growth of 104–9
through constant innovation 105–7
through internationalization 107–9
leadership/influence of Zhengfei Ren 116–18 see also Ren, Z.
rankings of 103
wins LTE World Summit 2011 awards 103
‘wolf culture’ 110–11
IBM 4–7, 80, 81, 109, 115
Lenovo 60, 72
industry–science linkages in Bohai Bay area (and) 26–36
findings 36–8
industry views 33–4
local government views 34–5
research institutions’ views 31–3
case studies for 31–2
types of cooperation between universities and enterprises 35–6
universities’ views on 27–31
barriers to industry research cooperation 30
case studies 28–9
information and communication technology (ICT) 109, 123, 127, 167 see also Spreadtrum
innovation activities and IP 169 see
Technological entrepreneurship in China

also upgrading strategies of electronics firms
innovation index 55
innovation systems, regional
dimensions of 17–19 see also
industry–science linkages in Bohai Bay area; regional innovation
systems of Bohai Bay area
Institute of Computing Technology (ICT) see Chinese Academy of
Sciences (CAS)
Intel 81–2, 165
intellectual property (IP) 68, 160, 170
assignments 79
protection of 126, 162–3
State Intellectual Property Office (SIPO) 165
technologies 106–7
weak protection of 169
intellectual property rights (IPR) 30,
32, 35, 57, 87
infringement of 61, 162
registration of 46
International Telecommunication
Union (ITU) 129
approve TD-SCDMA system 129
IT Manager’s World 110
Japan 7, 13, 66, 71, 74–5, 81, 91–3, 97,
107, 126, 143, 158 see also Neusoft
economy of 17
high speed rail in 9–10
as top PV country 88–9
Jiangsu 16, 21, 42, 89–90, 96
Kroll, H. 16, 41
Kuhlmann, S. 18
Kyoto Protocol Clean Development
Mechanism 95
Lenovo Group Limited (and) 2–8, 17,
60, 126, 170
acquires IBM PC businesses 7–8, 72
assistance from parent institution 4
China’s S&T system reform and
Lenovo’s pre-launch stage 2–3
difficulties in early years 3–4
early stage of company creation 3
establishment of basic concept of
enterprise management 5–
Hong Kong Lenovo 6–8
identification of role of NTC 4
integration of Han-card technology
with computer 4–5
internationalization of company 6–8
New Technology Development
Company (NTC) 3–7
Li, S. 1
Liaoning Province 16, 22–3, 68–9,
77–8
leading industries in 69
Software Engineering Technology
Research Centre 71
Luo, X. 16
management of China’s high speed
railway development see high
speed railway (HSR) development
in China
Market Research Report for the Global
Wireless Communication
Equipment (2009) 103
MediaTek Inc. 128–9, 134
micro-databases: SCOPIS and
PATSTAT 27
Microsoft 75, 81, 83, 165
Ministry of Railways (MOR) 9–14
Main Technology Policy of Railways
revised (1994) 10
speed-up campaigns 11–12
models
extended creative role identity
process 152
fabless production 59, 61
government-pulled triple helix 67–8,
78–9
utility 46–51, 92, 162, 165
visual modelling technique 80
NASDAQ 95, 96, 128, 131, 167
NASDAQ: SPRD 124
National Electric Power Company 88
National Engineering Research Centre
for Computer Software (of NEU) 71
Neusoft Corporation (and) 68, 71,
74–84 see also Liu, J.
administration and local government
support to high-tech
entrepreneurship 77–8
‘China’s Microsoft’ 75
Computer Tomography (CT) production process/CT-C2000 80
continuous innovation for competitiveness 79
development of own-copyright software 76
Fahe Fang 80
FDI, growth and internationalization 80–83
founder of 75 see also Liu, J.
Java technology 79
listed on Shanghai Stock Exchange 73, 79
NEU-ALPINE 75, 76, 77, 80
Openbase 80
partnerships 81
returns to NEU and role of UREs 83
Software Centre/Park 75, 79
Solution Architecture (NeuSA)
university–industry linkages under government-pulled triple helix model 78–9
X-ray machines 80
New Technology Development Company (NTC) 2–8
becomes Lenovo Holding Company 7
Northeast College of Technology 71
Northeastern University (NEU) 69–74
see also Neusoft Corporation
administration support to UREs 73
collaboration with industry 73
contribution from Neusoft to 83
incubator of NEU Entrepreneurial Park 73
political origin of 70
research atmosphere basis of 70–71
research projects 74
Science Park 70, 73
Science and Technology Enterprise Group Co. Ltd 74

OmniVision Technology 128
original brand manufacturer (OBM) 59–61
original equipment manufacturer (OEM) 59–61
patents/patenting 5, 7, 25, 27, 31–2, 42, 44–52, 60, 61, 74, 79, 92, 105, 134, 143, 148, 158, 162, 165
Pearl River Delta xviii, 19, 24, 29, 32, 34, 51–2, 62, 123 see also upgrading strategies of electronics firms
PV industry 97
regional innovation system of see upgrading strategies of electronics firms
Petti, C. 157
Philips and X-ray machines 80 see also Neusoft Corporation (NEU)
photovoltaic (PV) industry see solar photovoltaic industry
polysilicon 95–8 see also solar photovoltaic industry
Qrobot (and) xxi, 158–69
in perspective 164–9
Richen Intelligent Technology Co. Ltd 162–3
Tencent’s QQ 158–60
R&D employees’ creative role identification in CBRDC (and) 146–52
the creative climate 149–50
creative role expectation from the talent market 148–9
divergent creative role expectations 146–8
strategy for improving 150–52
R&D Magazine awards 103 see also Huawei
R&D talent management in
Changhong R&D Center (CBRDC) (and) 142–6
background of Center 143–4
career management 145–6
R&D job design 145
R&D performance appraisal 145
R&D workforce 144–5
training and education 146
R&D talent’s identification and management
creative role identification as critical R&D talent management issue 153
elements influencing creative role identity 142
employees’ creative role identification see R&D employees’ creative role identification in CBRDC
employees’ social identification structure and priorities 153
extended creative role identity process model 152
process of creative role identity 141–42
R&D talent management in Changhong R&D center (CBRDC) see main entry
reasons for studying 139–41
self-realization 141
regional dimension of innovation systems 17–19
regional innovation systems of Bohai Bay area 19–26
findings of study on 36–8
industry system 24–5
policy system 19–21
administration policy 19–21
industry–science linkages policies 21
science system 21–3
public research institutions 22–3
universities and colleges 21–2
summary of 25–6
awarded Lifetime Excellence Award (Chinese Entrepreneurs, 2008) 116
Business Week’s one of China’s Most Powerful People 2009 104
leadership of/influence on Huawei 116–18
ranked one of 100 most influential people (Time Magazine 2005) 117
‘The winter of Huawei’ 117
renewable energy 89, 93–5, 100
research projects 32, 66, 70, 76
NEU 74
research and development (R&D) (and) xxi, 42, 55, 60, 61, 84, 101, 135–6 see also R&D entries
centres/institutions 78, 88
expenditure 16, 22, 24, 25, 42, 52
internal R&D/innovation activities 57
laboratories 165
personnel 22, 23–5, 66, 143, 146, 149, 165
tax incentives 34
Robotics, International Federation of (IFR) 157
robots/robotics 157–9 see also Qrobot
Ibuddy (MSN) 159
Kysoh 159
Myodeskfriend 159
Rockwell Semiconductors 134
Rosenberg, N. 18
Sanhao Science and Technology Street 70
Santai, Sichuan Province 71
Schiller, D. 41
Science and Technology, Ministry of (MOST) 19–20, 88, 165
Science and Technology Development Zone of Nanhu 70
Scientific American 157
Shandong 16, 22–3
Shanghai 16, 163
Baosteel Group Corporation 74, 77
Stock Exchange 79
Zhangjiang High-tech Park 128
Shantong, L. 1
Shenzhen 61, 97, 105, 117, 160, 162 see also SIAT-CAS
municipality 43, 166–7
PV-powered gadgets 88
University Park 58
Shi, J. 139
SIAT-CAS 158–66
Engineering Centre 165
Technology Transfer Office 161
Silicon Valley 127, 128, 166
Singapore 42, 61, 162
Advanced Digital Sciences Centre (ADSC) 161
solar photovoltaic industry (and) 86–102 see also China and Hong Kong
Canadian Solar 90
ever days of 87–9
Euro-China Solar Promotion Committee 97
 evolutionary advancement and competitive advantage 92–5
exhibition in Guangzhou 92
GCL Silicon 96
Hanwha SolarOne/SolarFun (Linyang Group) 95–6
industrial clustering into new Millennium second ‘phase’ 89–92
Tenth Five-Year Plan 89–90
issue for Chinese government 88–9
in Japan 88–9, 91
JA-Solar launch 94
LDK-Solar 95
leverage of technology transfer and FDI 97–9
new feed-in (FIT) incentive mechanism 98–9
‘new phase’ old business model and ‘systemic’ interaction 95–7
R&D technology 98
Rene-Sola/Zhejiang Yuhui Solar Energy Source 95
Solar Power Inc. 95
state and creation efforts for (towards 2016) 99–101
studies of 88
Suntech-Power 90, 92, 95
Trina-Solar 90–91
ITALian connections of 90–91
Yingli-Solar 91
Spain
high speed rail in 9
solar PV industry in 97
Spreadtrum xx–xxi, 123–38
c-owners of 127–8
focused on China and indigenous innovation 129–31
ICT growth in China 124–9
international capital market 131–3
learning-by-doing – improving corporate management 133–5
and TD-SCDMA standard 129–31
Suntech-Power PV module manufacturing company 90
listed on New York Stock Exchange 90
survey(s) 19, 59, 62–3
R&D personnel 146–9
technological upgrading process of electronics firms in the PRD (2009) 51
Tagscherer, U. 16
Taiwan/Taiwanese 34, 42, 43, 55, 57–9, 61, 62, 63, 97, 126, 128, 140
Takeuchi, H. 18
Tang, C. 139
TD-SCDMA standard 129–31, 133, 135–6
TD-SCDMA/GSM baseband chip 124
technological entrepreneurship differentiating traits of 169–70
Tencent 158–63, 167
PaiPai (Shop QQ) 163
QQ instant messaging service 158–60
see also Qrobot
Terman, F. 76, 77
Thomson Reuters 92, 94
Tianjin 16, 19, 21–4, 30, 78
New Area 28
Tiger economies 42
United Kingdom (UK): Higher Education Funding Council for England (HEFCE) 79
United Nations (UN) Development Program 88
United States of America (USA) 60, 162
Department of Energy 88
First Solar company 90
intellectual property assignments 79
New York Stock Exchange (NYSE) 90, 91
Qualcomm 129
SRS 161
universities
government pulled triple helix 67–8
history of 71
industrial base and political influence Liaoning Province 68–9
Technological entrepreneurship in China

Northeastern University (NEU) 69–74 see also main entry
upgrading strategies of electronics firms 41–65
upgrading strategies of electronics firms (Hong Kong) for 58–62
‘fabless’ production of display integrated circuits (ICs) 61–2
transition from OEM to OBM 59–61
comparison of innovation in Guangdong and Hong Kong 50–51
context for regional-sectoral study of Guangdon innovation system 41–3
business innovation in 43–5
general development of technological activities in 45–50
innovation activities of electronics firms in the Pearl River Delta 51–8
innovation and innovation intensity 52–5
use of external sources for innovation activities 55–8
venture funds: Legend Capital 131
Wan, Y. 123
Wang, H. 1
Wenzhou 160
Wu, Y. 103
Xiaoping, D. 94
Yan, H. 1
Yangtze River Delta 19, 21–2, 23, 24, 29, 32, 34, 42, 47, 89, 90, 123
R&D personnel in 22, 24
Zhang, S. 157
Zhang, Y. 103
Zhejiang 16, 21, 89, 95, 99
Zhou, C. 66, 84
ZTE 42, 123, 126, 136–7, 170