Index

A-class rated appliances 161
see also cooling appliances;
   Energy+, case-study
ACC (American Chemistry Council) 175, 184
accountability verification 14–15
actors in policy networks 84–6
adaptation 40, 51–2, 95
adaptation deficits 50–52
adaptation flexibility 62, 63, 64, 93–5, 239
   Burnside Industrial Park 154, 155
   eco-industrial parks 153–4
   Energy+ 165–6
   Kalundborg 153
   PIUS 140
   proKlima 113
   Responsible Care 188–90
adaptive competition 41
adaptive efficiency 43
ADL (Arthur D. Little GmbH) 134
Adriaanse, A. 67
agents, enterprises as 35–6
allocative efficiency 42, 90
aluminium industry 140, 191
American Chemistry Council (ACC) 175, 184
anti-inflation policy 58
antitrust policy 28, 51
appliances, cooling 161–2, 164, 167
   European sales comparison 169, 170
   high-efficiency 159, 165, 167, 169
see also Energy+, case-study
asset management 17–18, 19
   see also SAM Sustainable Asset Management
Austria, Graz 117, 119, 128
see also Ecoprofit, case-study
Austrian market process theory 29
banking industry 17
Basic Ecoprofit Program 118, 119, 127
see also Ecoprofit, case-study
Beckenbach, F. 50
Bendell, J. 20
benefit-sharing 242
best practice 41, 47
Bhopal, India 172
biased calculation 50
binding corporate accountability 20
Bleischwitz, R. 48, 65, 145
Börzel, T. 84
BP plc, case-study 195–208
actors and resource-dependency relations 197–202
   European Union 201–2
   international law-making bodies 199–200
   national governments 200–201
   non-governmental organizations 197–9
   other companies along product chain 199
assessment and evaluation
effectiveness: implementation 205–6
effectiveness: targets and strategies 204–5
efficiency 206
relevance 203–4
summary 206–7
climate change strategy 196
conclusions 207–8
greenhouse gas emissions reduction 196–7, 198, 203
mission 195–7
policy-relevant outcomes 202
scoring chart of tradable permits 208
BP UK 201
Bregha, F. 186
Browne, J. 196, 197, 199, 203, 204
Budzinski, O. 26, 31, 33, 40, 41
building sector 71–2, 114

268

Raimund Bleischwitz - 9781847206831
Downloaded from Elgar Online at 03/11/2019 10:10:15AM
via free access
Index 269

Burnside Industrial Park 145, 152
  adaptation flexibility 154, 155
effectiveness 150–51
efficiency 151–2
horizontal corporate cooperation 152
relevance 147–9
scoring chart 156
see also eco-industrial parks, case-study; Kalundborg

Busch, T. 17

Business Environmental Leadership Council (BELC) 198
by-product exchanges 146, 149, 151

CAER (Community Awareness and Emergency Response) programme 172, 182

Canada, eco-industrial park see Burnside Industrial Park

Canadian Chemical Producers Association (CCPA) 172

CAPs (Community Advisory Panels) 175, 181
‘capture of the regulator’ 54, 93
carbon dioxide emissions 110, 163, 203, 204
see also greenhouse gas emissions

Carbon Disclosure Project 18
CARE project 129
Carlsson, L. 84
cartels 38–9
case-studies
  approach 97–8
  assessment and evaluation 98, 99–100
  conclusions 98, 101–2
  scoring system 101
see also individual case-studies
cause-consequences hypotheses 30

CCPA (Canadian Chemical Producers Association) 172

CDM (Clean Development Mechanism) projects 200, 202, 205

CEFIC (European Chemical Industry Council) 173, 179, 181, 183, 184, 189
quantitative indicators 183

Responsible Care HSE Reporting Guidelines 184

cement industry 191
chemical industry 172, 181, 182, 185
  impact on human health and environment 182
  national associations 14, 174, 175, 176
  performance results 178
  safety, health and environmental performance 180, 183
see also Responsible Care initiative, case-study

Chertow, M.R. 145

Chicago competition 28

Chicago School of Antitrust Analysis 28
civil regulation 20
classical competition 26

Clean Development Mechanism (CDM) projects 200, 202, 205
clean technologies 132

Cleaner Production Center (CPC) Austria 128, 130
Cleaner Production Germany (CPG) 133

Cleaner Production programme (UNEP) 136
climate change 9, 49, 196, 203–4
  abatement 69, 165
  action on 196–7
  engagement policy 18
  primary responses 9
see also carbon dioxide emissions; greenhouse gas emissions

climate protection funding see proKlima, case-study
coevolution
  corporate governance deficits 243
  corporate governance strengths 242
  corporate and political governance 64, 65
  and government failures 53–4
  and market failures 48–53
  market-supporting institutions 58
CO₂ (carbon dioxide) emissions 110, 163, 203, 204
see also greenhouse gas emissions

Coase, Ronald 88
codes of conduct 14, 220
cognitive theories 30, 37
Cohen-Rosenthal, E. 144, 145
collaboration management 19–20
command-and-control regulation 3
Community Advisory Panels (CAPs) 175, 181
Community Awareness and Emergency Response (CAER) programme 172, 182
competition in economics, concepts 26–8
evolutionary competition benefits 42–3
diversity 40–41, 47
treasurer as agents 35–6
institutional framework 36–40
knowledge creation 29–32
as test of hypotheses 32–5
and responsible corporate governance 43–5
competition laws 37–8
competition policy 28, 51
competition-relevant rules 37–9
competition theory 26–8
competitive income distribution 42
competitive markets, beneficial outcomes 42–3
conflict management 19, 20, 58–9
consumers’ sovereignty 42
continuous participation 53
continuous performance improvement 172
‘controlling’ laws 56
coolants in appliances 165
cooling appliances 161–2, 164, 167
European sales comparison 169, 170
high-efficiency 159, 165, 167, 169
see also Energy+, case-study
cooling technologies 165
corporate technology procurement 158, 164
corporate accountability 12–13, 15–16, 25
environmental NGOs (ENGOs) 19–21
corporate actors 84, 241
corporate alliances 152
corporate environmental networks 235, 237–9
corporate governance of sustainability 5, 61–2
good and bad practices 236–7
see also responsible corporate governance
corporate network cooperation 152
corporate risks 10
corporate scandals 10–11
corporate social responsibility (CRS) 10–11
see also responsible corporate governance
corporate sustainability 209, 213
Corporate Sustainability Assessment™ 214, 215–18, 219, 221
Corporate Sustainability Monitoring 219–20
corporate transparency 221–2
cost-efficiency Ecoprofit 122, 124
Responsible Care initiative 185
Coté, R.P. 144, 145
CPG (Cleaner Production Germany) 133
creative destruction 29
crisis management 220–21
cross-cutting governance, assessment criteria
adaptation flexibility 93–5
effectiveness 88–9
efficiency 90–91, 92
relevance 87–8
side-effects 91–3
CSR (corporate social responsibility) 10–11
customer relationship management 220
Dalkmann, H. 125
decentral 238
Delaware effect 91, 96
demand creation 22
dematerialization 67, 72
Denmark, eco-industrial park see Kalundborg
deregulation of German energy market 109
of natural monopolies 53
Discipline Management System 184
distributive efficiency 42
district heating systems 71–2
diversity in evolutionary competition 40–41, 47
Dixit, A.K. 52, 54, 90
DJSI see Dow Jones Sustainability
Indexes, case-study
domestic appliances see cooling
appliances; Energy+, case-study
Dow Chemicals 184
Dow Jones Global Index (DJGI) 212
Dow Jones Indexes 211
Dow Jones STOXX Sustainability
Indexes 211
Dow Jones Sustainability Indexes,
case-study 209–26
actors and resource-dependency
relations 210–14
conclusions 222–6
DJSI, evaluation of 223–5
key facts 210–11
mission 209–10
policy-relevant outcomes,
assessment and evaluation
214–22
assessment criteria development
214–16
corporate sustainability
information, gathering
217–18
corporate sustainability
quantification 218–21
indexes, strengthening acceptance
of 221–2
scoring chart 226
dynamic competition theory 29
dynamic efficiency 42–3, 90

Eco-Business Program 151, 152, 154
see also eco-industrial parks, case-
study
eco-efficiency 60, 61, 66, 74, 117,
141
Eco Efficiency Center (EEC) 150–51,
152, 154, 155
eco-industrial parks, case-study
144–57
assessment and evaluation
adaptation flexibility 153–4
effectiveness 149–51
efficiency 151–2

relevance 145–9
side-effects 152–3
conclusions 152–3
mission 144–5
scoring charts 156
see also Burnside Industrial Park;
Kalundborg
eco-labelling 161, 163, 164, 165
eco-taxes 60–61
ecological charges 134
ECOlogical PROject For Integrated
Environmental Technologies see
Ecoprofit, case-study
ecological sustainability 136
economic competition 26
economic freedom 42
economic incentives 108, 114,
234
economic stability 59
Ecoprofit Academy 118, 122
Ecoprofit, case-study 117–31
actors and resource-dependency
relations 118–19
assessment and evaluation
adaptive flexibility 127–9
benefits for enterprises and
municipalities 126
effectiveness 121–2
efficiency 122–5
environmental fields, breakdown
123
relevance 120–21
savings and investments 123
side-effects 125–7
conclusions 129–31
mission 117–18
PIUS, comparison with 142–3
policy-relevant outcomes
119–20
scoring chart 130
Ecoprofit Certification 119, 122
Ecoprofit Club 118, 119–20, 127
Ecoprofit Label 119
EEC (Eco Efficiency Center) 150–51,
152, 154, 155
EEI (energy efficiency index) 161,
162
EfA NRW (Efficiency Agency of
NRW) 133, 135, 136, 137
PIUS Checks 139, 140, 141
energy efficiency index (EEI) 161, 162
energy-efficient appliances 158, 162
European sales comparison 169, 170
see also Energy+, case-study
Energy Intelligent Europe 164
energy labelling system 161, 163, 164, 165
energy system for sustainability 68–72
ergy systems and material flows links 72–3, 74
enforcement costs 193
engagement policy 17, 18–19
ENGOs (environmental non-governmental organizations) 16, 19–20
Enquête Commissions 54, 69–70
Enron, collapse of 10
enterprises as agents 35–6
‘entrapment’ 63
Environmental Defense 198
environmental impact, reduction in 151
environmental management 150, 220
environmental non-governmental organizations (ENGOs) 16, 19–20
environmental risk assessment activities 17
environmental strain, reduction 151
Esso 199
European Aluminium Industry 191
European Chemical Industry Council (CEFIC) 173, 179, 181, 183, 184, 189
quantitative indicators 183
Responsible Care HSE Reporting Guidelines 184
European Union 55
emissions trading 18, 201–2
energy labelling system 161, 163, 164, 165
energy use 162, 163, 168–9
household appliances market see Energy+, case-study
sustainability policy 4
evaluation research 81–2, 86–7
evolutionary competition benefits of 42–3
diversity 40–41, 47
enterprises as agents 35–6
institutional framework 36–40
knowledge creation 29–32
as test of hypotheses 32–5
exchange of by-products 146, 149, 151
exploitation 63
exploration 63, 64
external costs 90–91, 122, 138
external institutions 36
externalities 49–50, 60, 76
ExxonMobil 199
Field, A.J. 36, 37
financial auditing companies 15
financial markets
capabilities and activities 16–19
core activities 17–19
and sustainability see Dow Jones
Sustainability Indexes, case-study
financial sector 10
firms
innovations, behaviour towards 50, 51
as part of social environments 23
and responsible corporate
governance 21–4
flexibility 62, 95
see also adaptation flexibility
foaming agents 163, 165
Forrest, C.J. 14
fossil fuels 71, 72
fossilization 153
free market 47
free-riding 23, 187
freedom of choice 42
freezers 158, 162
see also cooling appliances;
Energy+, case-study
Friends of the Earth 199
game theory 27
German Chemical Association (VCI) 181, 182, 184, 186, 189
German Norming Institute (DIN) 181
Germany 184
building sector 115
clim ate policy 69
CO₂ monitoring system 62
greenhouse gas emissions policy 69–70
scenario analysis of sustainable
energy system 69–72
total material requirement 67, 68
Gertler, N. 148
GHG see greenhouse gas emissions
'Global 2000' report 54
global commons 60
global environmental problems 9–10
global environmental public goods 49
global greenhouse gas emissions 198
global product chains 8–9
global stakeholders of large
corporations 12
governance of sustainable development 5, 61–2
good and bad practices 236–7
see also responsible corporate
governance
government failures 53–4
government, policy networks as 83
Graz, Austria 117, 119, 128
see also Ecoprofit, case-study
Great Depression 27
greenhouse gas emissions 199
BP commitment 196–7, 198, 201, 203, 205
emissions trading 201–2, 205–6
EU total from cooling appliances 163
German policy 69–70
Kyoto Protocol 200
see also climate change
Greenpeace 199
greenwashing 11, 20
grey energy 68, 74
Grossekettler, H. 89
Hayek, F.A. 29, 31, 37
hazardous substances see chemical industry; Responsible Care
initiative, case-study
hidden material flows 67, 75
high-efficiency appliances 159, 162, 165, 167, 169
High Production Volume (HPV) programme 180
horizontal corporate cooperation 152
horizontal integration 57
household appliances see cooling
appliances; Energy+, case-study;
energy-efficient appliances
household energy use 163
human capital 60

I-O tables 73
ICCA (International Council of Chemicals Associations) 173, 178, 180
ICCTA (International Council of Chemical Trade Associations) 180
IETA (International Emissions Trading Association) 198–9
IFCS (Intergovernmental Forum on Chemical Safety) 180
incremental innovation 63
individual involvement 232
industrial eco-system 145
industrial ecology 144
see also eco-industrial parks
industrial networking 155
industrial parks 145
information deficits 52–3, 54, 55
innovation inducing regulation 5, 62
innovations 5, 28, 38, 43, 50, 63–4
in chemical industry 186
clusters of 23
different firms’ behaviour towards
51
diffusion of 140
Ecoprofit 125, 126, 127
Energy+ 165
proKlima 112
innovative financial products 17
input-output tables 73
institutional framework of evolutionary competition 36–40
institutional innovation 63
insurance industry 17
integrated environmental technologies see Ecoprofit, case-study
integrated systems analysis
energy system 68–72
material flows 67–8
need for 72–4
physical input-output tables (PIOT) 73–4
policy-making, implications for 75
Inter-Organisation Programme on the Sound Management of Chemicals (IOMC) 180

Intergovernmental Forum on Chemical Safety (IFCS) 180
Intergovernmental Panel on Climate Change (IPCC) 203
internal accountability 186
internal costs 122, 138
internal institutions 36
internal participation 94
internalization of externalities 49–50, 76
International Council of Chemical Trade Associations (ICCTA) 180
International Council of Chemicals Associations (ICCA) 173, 178, 180
International Emissions Trading Association (IETA) 198–9
see also emissions trading; greenhouse gas emissions
international environmental non-governmental organizations 16, 19–21
international law 200
‘International Right to Know’ campaign 20
investment industry 17–18
see also Dow Jones Sustainability Indexes, case-study
IOMC (Inter-Organisation Programme on the Sound Management of Chemicals) 180

Jacobsen, N.B. 147, 152
Jaffé, A.B. 50
Japan, total material requirement 67–8
Jeder, P. 184, 186, 188
Jeucken, M. 13, 17
Johannesburg Stock Exchange (JSE) 212–13
Joint Implementation (JI) projects 200, 202, 205
Kaldor-Hicks criterion 89
Kalundborg 144–5, 154
adaptation flexibility 153
eco-industrial flexibility 153
effectiveness 149
efficiency 151
historical sequence of industrial symbiosis 147
Index

industrial eco-system 148
relevance 146–7
scoring chart 156
see also Burnside Industrial Park; eco-industrial parks, case-study
Kalundborg Center for Industrial Symbiosis (KCIS) 149
Kenis, P. 83
Kerber, W. 34, 41
King, A.A. 187
knowledge-based firms 21–4
knowledge creation 29–32, 52, 55, 60, 61, 231
knowledge deficits 55
knowledge generation, spiral of 22
Kristof, K. 169
Kuhndt, M. 12, 13, 15, 17, 191
Kuik, O. 8, 10
Kyoto Protocol 200, 204, 205
labelling system 161, 163, 164, 165
labour, cost of 60
labour practice indicators 220
landfills 68, 120, 150
Langlois, R.N. 23, 29, 37
leakage effects 91
learning organizations 141
learning processes 52, 53, 93
legal incentives 55, 234
Lenox, M.J. 187
life-cycle cost benefits of high-efficiency purchase 167
life-cycle global warming impact 163
links between policy network actors 84–5
Long-range Research Initiative (LRI) 180
‘Long Term Scenarios for a Sustainable Energy Future’ 70
Lowe, E.A. 144, 145
macroeconomic stabilization 58
management systems 14
Mantzavinos, C. 52
market competition 26
market dissemination of new technologies and strategies 241
market economy 57
market failures 48–53
market integration 4
market-supporting institutions 58
market transparency in white goods 158–9, 166
markets 48
markets’ efficiency 53
material flows 67–8
material flows and energy link 72–3, 74
materials efficiency 67, 243
materials exchanges 146, 149, 151
Matthews, E. 68
Mays, R.H. 14
measurements costs 193
Media and Stakeholder Analysis (MSA) 218, 220
Metcalf, J.S. 58
Moffett, J. 186
Moltke, K. 8, 10
monitoring 76, 93–4, 219–20
multilevel horizontal integration 57
multilevel vertical integration 57
Munn, K. 177
Munton, R. 63
Murphy, D.F. 20
mutual learning 40, 41
National Advisory Panels (NAPs) 14, 175, 181–2
national chemical associations 14, 174, 175, 176
national defence 48
nationwide sustainable energy system 68–72
natural gas 70
natural monopolies 53
natural resources, shifting taxation onto 59–60
Nature Conservancy 197–8
negative external costs, reduction of 90–91
negative externalities 49–50, 60, 165
negotiation costs 193
Nelson, R. 49
neoclassical competition theory 26–7
Netherlands
energy-efficient appliances 169
total material requirement 67, 68
transition management 65
networks see policy networks
Nilsson, H. 50, 51
Nonaka, I. 22, 23
North, D.C. 35, 36
North Rhine-Westphalia (NRW), Efficiency Agency 133, 135, 136, 137
PIUS Checks 139, 140, 141
North-South European divide in energy-efficient appliance sales 169, 170
Nova Scotia, eco-industrial park see Burnside Industrial Park

Orbach, T. 17
ozone depletion 9, 165
participation 94, 239
Partnership for Climate Action 198
patents 39, 47
path-dependencies risk 152–3
peer pressure 186
People and Planet 199
perfect competition 27
performance evaluation systems 14
Pew Center on Climate Change 198
physical footprint of climate policy scenarios 73
physical input-output tables (PIOT) 73–4, 75
PIUS, case-study 132–43
actors and resource-dependency relations 133
assessment and evaluation adaptation flexibility 140
effectiveness 135–8
efficiency 138–9
relevance 134–5
side-effects 139–40
conclusions 141–3
Ecoprofit, comparison with 142–3
objections to partaking in 137
policy-relevant outcomes 133
scoring chart 142
PIUS Checks 135, 136, 138–9, 140, 141
PIUS Internet Forum 133
policy analysis conclusions 231–5
policy network analysis 81–2
policy networks 12
definitions 83–7
effectiveness 88–9
efficiency 90–91, 92
relevance 87–8
policy-relevant outcomes 86, 99–100
politicians 53–4
Popper, K.R. 47, 94
Porter, G. 91
Posen, A.S. 94
price theory 26–7, 44
product chains 10
production integrated environmental protection 140
see also PIUS, case-study
ProduktionsIntegrierter UmweltSchutz see PIUS, case-study
profit maximization 21
proKlima, case-study 105–16
actors and resource-dependency relations 105–7
assessment and evaluation 108–13
adaptation flexibility 113
effectiveness 109–10
efficiency 110, 112
relevance 108–9
side-effects 112–13
conclusions 113–16
applicability and transferability 114
forum for learning 114
link to local and regional level 113–14
regulatory context 115–16
scoring chart 115
organization and impact mechanism 106
policy-relevant outcomes 107–8
property rights 58
public goods 48–9
public-private market transformation see Energy+, case-study
‘race to the bottom’ 91
radical innovation 63, 64
Ramesohl, S. 169
raw materials decreased use 151
exchanges 146
taxation 61
RCG see responsible corporate governance
RCLG (Responsible Care Leadership Group) see Responsible Care Leadership Group
re-regulation 53
REACH initiative 180, 187, 193
refrigerants 163
refrigerators 158, 162, 163
see also cooling appliances;
Energy+, case-study
regulatory agencies 54
regulatory costs 54
regulatory institutions 58
Reijnders, L. 67
relevance of policy outcomes 86–7
BP plc 203–4
Burnside Industrial Park 147–9
eco-industrial parks 145–9
Ecoprofit 120–21
Energy+ 163–4
Kalundborg 146–7
PIUS 134–5
proKlima 108–9
Responsible Care initiative 179–82
rematerialization 67
renewable energy 64, 70–71
renovation of old buildings 71–2
reputation costs 24–5, 185, 186, 193, 241
residual products 146, 149
resonance ability 44
resource consumption, reduction 151
resource-dependency relations 84–5
resource efficiency 67, 134, 137, 139,
145, 152, 157, 243–5
resource management, sustainable 66,
101
resource productivity 66–7
resources and types of actors 85
Responsible Care initiative, case-study
172–92
actors and resource-dependency
relations 173–7
assessment and evaluation
adaptation flexibility 188–90
effectiveness 182–5
efficiency 185–6
relevance 179–82
side-effects 186–8
conclusions 190–92
fundamental features 174
mission 172–3
policy-relevant outcomes 177–9
scoring chart 192
Responsible Care Leadership Group
(RCLG) 173, 176, 178
responsible corporate governance
(RCG)
in competition 43–5
corporate accountability goal 15–16
definition 12
and firms 21–4
good and bad practices 236–7
policy-relevant approach 12–15
principles of encouraging corporate
responsibility 13–15
stakeholder-oriented approach
15–21
financial markets 16–19
international ENGOs 19–21
risk assessment 17, 19
Robertson, P. L. 23
Rodrik, D. 54, 58
Rotterdam Convention on the Trade in
Hazardous Chemicals 180
Safety and Quality Assessment
Systems (SQAS) 180–81, 193
SAM Research, Corporate
Sustainability Assessment™ 214, 
215–18, 219, 221
SAM Sustainable Asset Management
211
scenario analysis of sustainable energy
system 69–72
scenario techniques 59, 69
Schneider, V. 83
Schubert, U.-M. 145
Schumpeter, Joseph A. 29
scoring charts
BP plc 208
Burnside Industrial Park 156
Dow Jones Sustainability Indexes
226
eco-industrial parks 156
Ecoprofit 130
Energy+ 170
Kalundborg 156
PIUS 142
proKlima 115
Responsible Care initiative 192
search costs 193
self-enforcing contracts 232
self-enforcing mechanisms 241
self-interest 53–4
self-regulation 87–8, 89
Seveso, Italy 172
shareholder activism 18–19
shareholders, sensibility to corporate responsibility 10
shifting taxation 59–60
side-effects assessment 91–3, 238–9
eco-industrial parks 152–3
Ecoprofit 125–7
Energy+ 165
PIUS 139–40
proKlima 112–13
Responsible Care initiative 186–8
Simon, H.A. 52
small and medium-sized enterprises (SMEs) 117–18
contribution to pollution 120–21
networks 23
and Responsible Care initiative 187–8
Smith, Adam 26
social environments, firms as part of 23
social insurance 58
socially responsible investment (SRI) 17–18, 209, 211–12
see also Dow Jones Sustainability Indexes, case-study
socially responsible screening 10
soft incentives 232
solar energy 72, 107
solid waste management 68, 150
Soregaroli, M. 170
spiral of knowledge generation 22
split incentives 50
SQAS (Safety and Quality Assessment Systems) 180–81, 193
SRI see socially responsible investment (SRI)
Stadtwerke Hannover AG 106, 108, 109
stakeholder constellation 15–16
stakeholder, definition 24
stakeholder-empowered corporate governance 13–14
stakeholder processes 233
stakeholder verification 13, 14–15
static allocation efficiency 90
Stiglitz, J. 48, 49, 52, 54
‘stuck at the bottom’ 91
subjective-rational action 31
subsidiarity 57
supplementarity 205
sustainability indexes see Dow Jones Sustainability Indexes, case-study
sustainability investments 17–18, 209, 211–12
sustainability strategies 240
sustainability targets 59, 61
sustainable corporations 17
sustainable development governance 5, 61–2
good and bad practices 236–7
see also responsible corporate governance
sustainable energy system 68–72
Sykes, A.O. 91, 92
systemic innovation 63, 64
Tapper, R. 176, 181, 189
target formulation 59
taxation, shifting 59–60
technological innovations 63, 126
total material requirement (TMR) 67–8
toxic chemical substances 182
toxic emissions reduction 187
Toyama, R. 22, 23
tradeable permits see BP plc, case-study; emissions trading
Train-the-Trainer Program 118
transaction costs 62–3, 90, 193
transition management 65
transparency 14, 94, 154, 164, 221–2, 239
triple bottom line (TBL) risk assessment 19
unemployment 60
Union Carbide 172
United Kingdom, climate change measures 62, 201
United States
International Right to Know campaign 20
material outflows 68
total material requirement 67
value-adding partnerships 152
Vanberg, V.J. 36
VCI (German Chemical Association) 181, 182, 184, 186, 189
vertical integration 57
Vogel, D. 91
voluntary action, crowding out 54
voluntary agreements 234–5
voluntary initiatives 168, 184, 185, 186
see also Responsible Care initiative, case-study
Waddell, S. 19
Walker, W. 63
waste management 68, 120, 150
see also PIUS, case-study
Wegner, G. 88
‘Weight of Nations’ study 68
Wene, C.-O. 50, 51
white goods markets 158–9
see also Energy+, case-study
workable competition 27–8
Working in Partnership website 197