## Index

- acidification potential, 47, 65, 79
- Agenda 21, 2
- air-tightness, 173

- background databases, 65, 72
- beam-slab systems, 213
- biogas, 86, 230, 348
- BNB, 53, 249
- BREEAM, 248, 257
- bridges, 217, 222
- building conversion, 105
- building form, 48, 120
- building information modeling (BIM), 32
- building sector, 3, 6, 10

- case studies, 91, 157, 289
- cassette profiles, 182
- certification labels, 247
- codes, 13, 15
- columns, 130, 155
- composite construction, 132, 157, 190
- composite decks, 203
- conservation of resources, 109
- construction process, 31, 352
- construction products regulation, 22
- construction work, 284
- contracting, 99
- conversion, 31
- cradle-to-cradle, 30, 203

- declaration types, 61
- deconstruction, 32, 108, 197
- design for deconstruction, 108
- design stage, 17, 30, 51
- DGNB, 53, 249

- ecoinvent, 65
- ecological aims, 8
- economic aims, 11
- ECO platform, 63
- end-of-life stage, 30
- energy efficiency, 8, 59, 86, 172
- energy recovery, 21
- energy saving ordinance, 23
- envelope, 171, 210, 300
- environmental data, 72
- environmental impact categories, 47
- Environmental Product Declarations (EPD), 14, 15, 60
- for hot-dip galvanised structural steel, 80, 141
- for profiled sheets, 81
- for sandwich panels, 81
- for structural steel, 78, 80
- European Open LCA Data Network, 66
- eutrophication potential, 48, 79
- external effects, 225, 336

- fire-protection, 166
- flexibility, 105, 124, 277
floor plan design, 122, 127
floor systems, 128, 190
functional unit, 45, 290, 305

Gabi software, 65
galvanizing process, 144, 146
global warming potential, 47, 79

heat flux, 206
high strength steel, 134, 155, 159
hoisting, 354
hot-dip galvanizing, 141, 148
HQE, 19, 49

industry emissions directive, 26, 148
Institut Bauen und Umwelt (IBU), 62, 85
integrated floor systems, 55
integrated planning, 33, 40, 274
intumescent coatings, 166

joint systems, 133

KBOB-recommendation, 85

LCA Comparison, 289, 305, 307, 310
LEED, 248, 256
legal background, 13
life-cycle concept, 29
life-cycle cost, 48, 51, 277
life-cycle phases, 29
life-cycle planning, 32
low rise office buildings LCA, 305

material efficiency, 42, 204, 317
material recovery, 22
metallurgical background, 136
Modul D, 18, 266
multistorey buildings, 117, 124, 128, 213

office buildings LCA, 310
office buildings, 117, 123, 127
ÖKOBAUDAT, 66
BIM, 34
operational phase, 31, 301
ozone depletion potential, 47, 79

photochemical ozone creation potential, 47, 79
planning, 32, 40, 234
present value method, 41, 52
product stage, 16, 30
program operator, 62
recycling, 18, 20, 73, 110
recycling of zinc, 148
recycling potential concept, 32
refurbishment, 31
renewable energy, 213, 229, 344
reuse, 16, 18, 20, 108

sandwich-construction, 173, 175
scenarios, 17
Simapro, 65, 87
single-storey buildings, 17, 102
single-storey buildings LCA, 289
Slimline, 197, 199
social aims, 10
space efficiency, 10, 102, 191
stakeholder, 5, 10
standards, 14
steel cassette profiles, 182
steel columns, 53, 92, 132, 155
steel decks, 210
steel production, 97
sustainable building quality, 102
sustainable office designer (SOD), 323, 325
sustainable steel construction, 97
tender, 99
thermal activation, 208
thermal inertia, 144, 158, 203
thermal insulation, 26, 182, 186, 304
transport, 352
typological concepts, 121

UPE channels, 152
use stage, 16, 31

variability, 124

waste hierarchy, 20, 109
whole-life costs, 50, 224, 225
wind energy, 230, 231, 344