

Index

A

- Accessibility, 11, 25, 46, 62, 65–67, 70–71, 74–75, 79, 81–83, 85, 90–93, 99, 125, 129, 134, 137, 155, 164, 171, 181, 183, 186, 199, 201
- Activity-based model, 27–29, 34, 43–44, 46, 192, 201
- Actor, 11, 24, 27, 31, 37–38, 43–46, 94, 154, 171, 182–184, 188, 191, 194–195, 197–202, 204–207
- Agent based simulation, 27–29, 38–40, 43–44, 46, 51, 200, 204
- Agriculture, 3, 7, 10, 17, 28, 43, 71, 73–75, 84, 86, 94, 98, 105, 109, 112, 114, 134, 137, 141, 153–154, 159–160, 162–163, 165, 173, 180–183, 185, 187, 193, 196–199, 201–204, 206–207
- Air pollution, 25, 27, 97, 129, 194
- Allocation module, 9–10
- Autonomous development, 6, 32, 132

B

- Baseline scenario, 6–8, 63–67, 70–74, 76, 79, 89–92, 132, 137
- Bid price, 12, 42, 45, 99, 108–109, 111, 168–172
- Biodiversity, 7, 62, 66–67, 69, 74, 79, 183–184, 187, 196–197, 201, 205–206
- Bioenergy, 97–114, 177
- Biomass, 97–114, 199
- Business park, 7, 10, 17, 62

C

- Calibration, 16, 24–25, 28, 31, 51, 170
- Climate adaptation, 89, 131, 133, 141–145, 181, 191

- Climate change, 3–4, 61–62, 66–70, 74, 76, 89, 97–114, 118, 126, 137, 141–146, 177–178, 183, 191, 193, 196, 198–199, 201–202, 206
- Commercial development, 11, 83, 119–120
- Common Agricultural Policy (CAP), 71, 75, 198, 201
- Communication, 24, 29, 32–34, 76, 136
- Conflicts, 61, 64, 74, 122, 143, 145, 182, 185, 193
- Consistency, 19, 80, 84, 86, 93, 129, 185, 194–195, 205
- Continuous model, 11, 13–14, 16, 24
- Core principles, 35–53
- Cost-benefit analysis, 100–105, 108, 180, 187

D

- DamageScanner, 18, 206
- Data Model Server (DMS), 18
- Decision-maker, 6, 26, 29, 31–32
- Demographic development, 4–6, 27–28, 63, 65, 81–84, 87, 90–91, 99–100, 106, 118–119, 124, 127, 138, 193, 196, 198, 200–201, 203
- Demographic model, 25, 43, 187–188, 200–201, 203
- Densification, 34, 82–83, 135–141, 147–148, 183, 186, 196, 198, 201
- Density, 41, 44, 66, 87, 93, 137–139, 147–148
- Discrete model, 14–16, 24
- Driving forces, 45, 99, 107, 154, 173, 197–199
- Dynamic modelling, 25, 36, 43, 45, 187–188, 194

E

- Economic theory, 25, 99, 180, 194
- Energy consumption, 27, 97

Energy transition, 181, 199
 Environmental Impact Assessment, 24, 119, 123, 127, 133, 147, 181
 Environmental issue, 27, 180
 Environmental policy, 4–8, 23, 118, 178, 182
 Equilibrium model, 95, 192, 194
 Ethanol, 97–98, 100–102, 104, 109, 113

F

Filtration, 98, 100, 104–105
 Flooding risk, 18, 62, 66, 74, 92, 120, 122, 125–126, 132, 137, 178, 188, 195, 199, 206
 Flood protection, 70, 73
 Future spatial patterns, 4, 63, 132–133, 177

G

GIS-data, 4, 203–205, 207
 Green heart, 75, 147
 Greenhouses, 7–8, 10, 71, 74–75, 97, 120, 122, 124, 133, 141, 161–162, 164, 167–168, 171, 202, 204

H

Hedonic Pricing Method (HPM), 153, 155, 172
 Household, 4, 26–27, 42, 80–83, 86–88, 90, 106, 138
 Housing, 5, 7, 10, 17, 27–28, 61–62, 65–66, 68, 70, 72, 76, 79–89, 94, 131, 134–135, 137–141, 177, 180, 183, 188, 192–195, 197–199, 201–207
 market, 17, 80–83, 86–87, 134, 177, 188, 194–195, 201, 203, 206
 Hydrology, 7, 10, 16–18, 86, 108, 111–112, 126, 186–188, 199

I

Impact assessment, 6, 17, 24, 31–32, 72, 119–120, 123, 125–127, 129, 133, 147, 181
 Implementation issue, 4, 16–19, 107
 Indicator, 18, 64, 66, 70–72, 74, 79, 85, 88, 91, 93–94, 123, 125–127, 129, 178–179, 185, 194–196, 206
 Industrial development, 82, 87–88, 99, 133–135, 146, 181
 Inertia, 10, 26–27
 Instrument, 17, 31–32, 70, 79–80, 94, 178–179, 182–187, 198
 Integrated model, 17, 27–28, 36, 88, 170, 187, 193, 196, 200, 202, 207

Integration, 9, 32, 36, 61, 67, 75, 91, 94, 131, 134, 142–143, 145, 180–182, 191–193, 204, 206
 Intensification, 44, 70–71, 74–75, 140–141, 186, 188, 198
 International business establishment, 62, 66, 70–71, 74

L

Labour market, 17, 79, 81–83, 86–88, 90, 94, 201, 206
 Land demand, 4, 9–10, 16–18, 24–25, 30, 61–63, 71, 76, 79, 105, 107, 132, 134–135, 137, 139, 141, 143, 192–193, 196–198, 202, 204
 Land market, 12, 81–83, 108, 153–174, 203, 205
 Land price, 13, 148, 153–155, 158, 162, 164–165, 167, 172–173, 198
 Landscape, 5, 11, 18, 36, 41, 61, 63
 Landscape quality, 63, 66–67, 69–71, 73–75, 79, 112, 114, 120, 122, 124–127, 131–132, 137, 180–185, 187, 193, 196, 198, 205–206
 Land use model, 5, 24, 38, 40, 44, 46–47, 53, 79–95, 178, 187–188, 191–207
 Land use transition, 153–173
 Land-use and transport interaction (LUTI) model, 79–95, 192, 200
 Linear probability model, 155, 157, 159, 172
 Literature review, 35–53
 Living environment, 6, 61–63, 66–67, 70–72, 74, 76, 106, 119, 180, 185, 195
 Logit model, 12, 24, 41, 84
 LUMOS, 3, 23–35, 40, 45, 52, 177–179, 182, 185, 187–188, 195, 199–204, 207

M

Map Comparison Kit, 3, 18
 Micro simulation, 28, 43–44, 46, 200
 Model chain, 16, 18–19, 26, 28, 181, 191, 194–195, 199
 Model development, 23, 30–31, 80, 186, 200
 Model validation, 35, 47–48
 Mono-functional land-use, 30, 41, 187, 198
 Municipality, 80–83, 87–88, 94, 205

N

National Government, 165, 182–183
 Natura 2000 area, 66, 69, 71, 74–75, 123, 125–126
 Natura 2000 policy, 7–8, 126, 198

Nature area, 5, 7–8, 13, 81, 99, 120, 126, 133–134, 165, 193, 198
 The Netherlands in the Future, 61, 76, 79, 192
 Noise pollution, 66, 86, 121, 200, 203

O

Optimisation, 4, 6–8, 11, 15–16, 24, 36, 121, 127, 193

P

Path dependency, 51, 80, 95, 194–195
 Planning concepts, 128, 131, 134–136, 138, 146–148, 180–181
 Policy alternatives, 117–118, 120–121, 123–127, 133–134, 138, 177
 Policy formulation, 30, 117–118, 123, 128
 Policy preparation, 193
 Population decline, 10, 181, 196
 Private actor, 182
 Province, 8, 65, 85, 90, 117–129, 131–133, 139, 141–145, 155, 159–160, 162–163, 168–169, 182–184
 Public actor, 182

Q

Quantitative assessment, 128–129

R

Raising awareness, 193
 Randstad, 61, 65–67, 70, 74–75, 89–90, 119, 131, 134–141, 147–148, 160–162, 164, 167–168, 171, 181–183, 185, 193
 Reed, 98–105, 108–114
 Regional diversification, 197
 Regional spatial planning, 117–118, 120
 Regional Spatial Strategy, 117–129
 Residential development, 90, 121–122, 124
 Resolution, 11, 14, 27, 32, 45, 49, 52–53, 85, 91, 94, 99, 108, 118, 131, 142–143, 146, 170, 205
 River discharge, 69
 Road-use pricing, 70, 75

S

Scaling, 12–13, 15–16, 49–50, 171–172
 Scenario-based simulation, 4–6, 31, 82, 117, 143, 147
 Scenarios, 3–6, 17, 28, 30–32, 63–65, 67, 79, 83, 87, 89, 99, 104–107, 111–113, 118–120, 122, 127, 129, 132, 134, 139–141, 145–148, 185, 195, 204
 Sectoral policy, 182–183

Sector-specific information, 9–10, 12, 16, 79, 128–129, 131, 134, 141–145, 148, 194
 model, 9–10, 16, 79, 148, 194

Shadow price, 12, 15–16, 172

Societal issues, 179

Spatial analysis, 45, 117, 127, 129, 180–181, 200

Spatial Computed General Equilibrium model, 192

Spatial concepts, 135, 180–181

Spatial exploration, 119–122

Spatial planning, 4–8, 12, 40, 51, 53, 61, 65, 74–75, 80–81, 84, 92, 117–118, 120–121, 126–127, 131–132, 134–135, 137–138, 153–155, 172–173, 177–188, 192–193, 203

constraint, 153–154, 173

Strategic environmental assessment, 123–127

Suitability, 9–10, 12–16, 18, 42, 85, 107–111, 119–120, 134, 138, 171–172, 194

Sustainability, 5–6, 8, 41, 61–64, 66–72, 74–76, 79, 84, 87, 89, 93, 112, 118–119, 123, 125–129, 132–135, 138–140, 181, 183, 185, 188, 191–194

T

Tangible user interface, 143–145

Tigris XL, 17, 79–89, 91, 93–94, 200–207

Time steps, 9, 25–26, 40, 45, 49, 52–53, 80, 86, 94, 201

Transition probability, 10, 153, 155–159, 162, 165–168, 170–171

Transport model, 25, 27, 81, 83, 91, 93, 134, 188, 201, 206

Trend-based simulation, 4, 6–7, 133

U

Uncertainty, 4, 31, 44, 118, 138, 146–147, 156, 168–169, 181

Urban fringe, 153, 172–173, 183

Urbanisation, 5, 11, 18, 27, 45, 65, 67–71, 73–75, 81, 83–84, 86–87, 120–122, 124, 127–128, 131, 134–141, 143, 146–147, 154, 158, 161–162, 165, 167–168, 177–180, 184–188, 196–197, 201

Urban restructuring, 87, 186, 196

Utility, 11–12, 24–26, 28, 83–84, 92, 94, 171

V

Visualisation, 13, 19, 32–33, 120–122, 136, 142

W

Water management, 10, 17, 74, 76, 80, 99, 114, 118, 121–123, 134, 137, 142, 160, 174, 183, 186–188, 191–192, 196–200, 202, 204, 206

Water storage, 69, 100, 104–105, 107, 109, 111–114, 198

What-if approach, 5, 146–147, 192–193

Willow, 98–105, 108–114

Z

Zoning, 11, 25, 86, 99, 120, 128, 139, 147–148, 155, 183