Index

'A15 River land' (case), nine steps for 179
  costs and benefits 179–82
  description of the case 179
  interaction between the measures 179
  multi-criteria analysis 183–4
  priority order of the impacts 182–3
  sensitivity analysis 185
  some conclusions for 185–186
  unquantifiable impacts 182
  weights for the different aspects 183
ABS (Anti-lock Braking System) 3
acceptance 254, 293, 301
Accessibility Solutions method 161
accuracy 190
  in binary classification 191
adaptive cruise control (ACC) 8, 259
Administrative Procedure Act (APA) 34
Advanced Driver Assistance Systems (ADAS) 12, 144, 189, 276, 279, 287
  user-related evaluation of: *see* user-related evaluations
ADVISORS project 246
AECOM report 244
analytical hierarchy process (AHP) 53
Annual Average Daily Traffic (AADT) 327
Apple 271–2
approaching emergency vehicle warning 152
APROSYS 189
ARGO (Algorithms for Image Processing) project 14
ARI (Autofahrer Rundfunk Information) 7
ARTS (Automated Road Transportation Systems) (Japan) 7
assessment method for demand and traffic management (AMDTM) 161–2
  basic principles 163–4
  in nine steps 165
    determine the costs and benefits 166–7
    determine the interaction between the measures 166
    determine the other quantifiable impacts 167
    determine the priority order of the impacts 169
    determine the unquantifiable impacts 168
    determine the weight for the different aspects 170
    discuss the results and determine the best packages of measures 170
    perform multi-criteria analysis 170
    perform sensitivity analysis 170
  relation with existing methods 164–5
  scope 162
Assistance for Cost-Effectiveness Analysis 161
assisted lane-changing 269
ASV (Advanced Safety Vehicle) 8

automated driving 3, 158, 257
  applications 287
    user-related evaluation of: *see* user-related evaluations
  challenges for impact and socio-economic assessment in the context of 280–1
  classification of potential impacts of 259
    benefits 260–2, 268–72
    costs 262–7, 272–3
    long term 267–73
    near and medium terms 260–7
    transformational potential 267–8
  infrastructure-based 11
  levels of 257–9
  methods and approaches for assessment of 274
    assessment of HMI 274–5
    assessment of technical performance 274
    assessment of user acceptance and use of automated driving functions 275
    impact assessment 275–6
    socio-economic assessment 276
  review of assessment of 276
    interpretation of results 279–80
    knowledge base 276–7
    synopsis of results 278–9
automatic road law enforcement 10
  infrastructure-based automated driving 11
  tolling 10
  variable speed limits 10–11
automation bias 292
automation issues, understanding of 288
automation monitoring 289
automotive industry 265–6, 273
autonomous driving 14–15
autonomous vehicles 133–6
average crash rates (ACRs) 339–40
average standard deviations (ASTDEV) 339–40

behavioural observations 297
behaviour-related issues 288
benefit–cost ratio (BCR) 28, 238
benefit KPIs 79, 81, 391
  calculation of 80
  pro-forma scheme for 82
benefits and evaluation of ITS projects 345
  Advanced Traffic Management System (ATMS) 356
    background of 356–60
    evaluation index system 360–1
    evaluation of 360
    social and economic benefit evaluation 364–5
    traffic operation efficiency evaluation 362–4
    traffic safety benefit evaluation 365–7
    Tsingdao ATMS 345, 356, 358–60, 366–7
  Bus Rapid Transit (BRT) project evaluation 345
    analysis of BRT simulation results 350–3
    BRT simulation model 348–50
    BRT station operation evaluation 353–6
    Guangzhou BRT system 345–6
    Guanzhou BRT simulation evaluation 346–8
biarticulated buses 350–1, 354
Bluetooth 215, 218, 226
Brooklyn Bridge 125
Buick LeSabres vehicles 7
'business-as-usual' 239

camera-based fog detection 206–7
capital costs 376
car breakdown warning 152
CEN (European Committee for Standardization/Comité Européen de Normalisation) 15
certification and roadworthiness testing 266

challenges and future work, on evaluation of ITS 389
discussions 396–8
ITS deployment and evaluation 389–92
lessons learned, research needs and challenges 392–6
classification of ITS 5–6
according to the course of traffic 6
with regards to system architecture 5
with regards to the driving tasks 6
with regards to the type of support 6
closed-circuit television (CCTV) camera 193
COBRA 244–5, 250–1
CODIA 237
coding observer 297
coherent cost–benefit analysis of ITS 309
aim 310
further work 324
method 311
expert evaluation workshops 312
literature study/data collection 311
selection of ITS measures 312
results 312
Motorway Control Systems (MCS) 320–1
ramp metering 315–17
traffic controlled variable speed limits 317–20
travel time/incident information 313–15
'collaboration consumption' 224
comfort of driving 260
Communication Team 70
COMPANION (COoperative dynamic for Mation of Platoons) 12
complacency 291–2, 300
and bias 292
Complacency Potential Rating Scale (CPRS) 300
connected sensors 215
connected vehicles 83, 235
Connecting Europe Facility (CEF) 239
construction costs 378
CONVERGE 189
CONVERGE 1998 56
cooperative ITS (C-ITS) 6, 235
challenges and limitations 250
bundling the effects of individual services 252
driver acceptance and compliance 253–4
'hotspots' and transferability 253
overlap with existing infrastructure 252–3
proportion of equipped vehicles and road network 253
size of the effect 250–1
time horizon for evaluation 254
cost–benefit analysis (CBA) 236
cost benefit for major EC projects 238–9
methodology 237–8
sensitivity analysis 238
planning for evaluation of 239
clarifying the background to the evaluation 239–41
considering the nature of the interventions 241
deciding on the best evaluation approach 242
defining the evaluation purpose and framing the questions 242
mapping the intervention logic 241–2
refining the evaluation approach 242
socio-economic evaluation of 237
strategic approaches to evaluation and assessment 246
EC impact appraisal 247–50
multi-criteria assessment (MCA) 246

structure and scope 236
terminology 235–6
trials data collection analysis and reporting 242
data analysis 243–4
introduction and planning of 242–3
reporting 244
core technologies in the ITS domain 389
cost–benefit analysis (CBA/BCA) 39, 51–2, 63, 163, 236, 309–10, 323, 392–6
cost benefit for major EC projects 238–9
methodology 237–8
sensitivity analysis 238
cost database 94
cost-effectiveness analysis (CEA) 51, 236
crashes
cost of 340–2
Non-Injury 336–8
reduction in 380
criteria-based strategy 55
critical issue regarding ITS evaluation 51
Cross-Ministerial Strategic Innovation Promotion Program (SIP) 8
Cybercars 14–15

DARPA (Defense Advanced Research Projects Agency) Grand Challenges 15
data fusion (DF) module
technical validation of 193–4
data harvesting and analysis techniques 227
data needs 40–1
data use 41
decision-making process
on ITS investments 37–8
phases in
and the use of ITS evaluation evidence 38–9
definitions of ITS 3–5
deployment KPIs 78–80, 391
deployment of ITS 15
market introduction 17
standardisation 15–16
testing and demonstration 16–17
description of ITS 47–8
design science theory 53
Detailed FOTs (D-FOTs) 147–50
diffusion of ITS in Europe 67
European ITS Platform+ (EIP+) 71–2
DRIVE C2X 151, 158
objectives 151–2
results 152–3
driver behaviour and performance issues, hypotheses concerning 293
driverless public transport systems 3
driverless vehicles 260, 268
driver performance, measuring 296–7
driver's understanding, trust, opinions and acceptance of the system 295
driving automation FOTs 153
FESTA approach 155
FESTA for driving automation 157
study designs 156–7
transportation system usage 156
driving task, effects of automation on 294
DSRC beacons 264
Dundee Stress State Questionnaire (DSSQ) 299
dynamic driving task 14–15
dynamic lanes 105
data 106
indicators 105
accidents 105
average linear density of vehicles 105
congestion in rush hours 105
distribution of traffic on lanes 105
emissions 105

journey time 105
noise pollution 105
number of lanes 105
observance of limits 105
speed standard deviation 105
traffic volume 105
results 107
accessible lanes 107
accidents 107
air and noise pollution 108
average daily flow 107
congestion in rush hours 107
intervention range 107
observance of speed limits 108
variation of the average flow 108
variation of the journey time 107
dynamic road user charging 264

E4 Essingeleden 315
EasyWay 69–71, 311
EasyWay Evaluation Expert Group 29, 42
EasyWay Steering Committee 69
EasyWay Supervisory Programme Board (SPB) 69
eCall 10, 237
economic value, network creating 127
economic productivity 128–32
key concepts 127–8
network-scale change, general characteristics of 132–3
effectiveness, of ITSs 327
analysis 331
average crash rates and standard deviation 339–40
cost of crashes 340–2
fatal crashes in dry and wet conditions 338–9
findings 331
injury crashes in dry and wet condition 334–6
overall crashes for dry and wet condition 331–4
ITS solution 329
Non-Injury crashes in dry and wet conditions 336
northbound (NB) 336
southbound (SB) 337–8
road and speed environment 329
road geometry changes 330–1
signs and delineation changes 331
speed changes 330
speed reviews 327–8
eIMPACT 236, 261, 276
electronic stability control (ESC) 259
electronic toll collection systems 10
emergency electronic brake light 152
emergency vehicle notification systems, eCall 10
Endsley's model of SA 291
Energy ITS Japan 7–8, 12
environmental benefits of automated vehicles 262
environment simulator 199
ePractice 42
Erie Canal 125
ESP (Electronic Stability Program) 3
essentiality, of ITS evaluation 487
ETC (Electronic Toll Collection) 8
eTeza overload control scheme operations (case study) 381–3
ETSI (European Telecommunications Standards Institute) 15
EU-funded SUNSET project 222
euroFOT 16, 144, 276, 278
deep dive into the methodology 145–6
results 146–7
timeline 144–5
European Commission (EC) 31, 42, 44, 67–9, 71–2, 88, 236, 238–9, 243, 391
EC Impact Appraisal 247–9
cost benefit for major EC projects 238–9
European guidelines 74–7
European ITS Action Plan 30
European ITS Directive 30

European ITS Platform+ (EIP+) 70–2
Euroregional projects 67–8
EU-US-JP Automation 274
EVA 1991 56
evaluation, defined 28
Evaluation Expert Group (EEG) 70
evaluation index system 360–1
evaluation policy, of ITS 27
  background 35
    aim and context of a survey on the use of ITS evaluation evidence 35–6
    limitations of the survey 36–7
    scope of the survey 36
  decision-making process, on ITS investments 37–8
  evidence-based ITS investment decision-making, barriers to 42–3
  and how it influences ITS evaluation 32–5
  importance of evaluation for ITS deployment 28–9
  phases in the decision-making process and the use of ITS evaluation evidence 38–9
  from R&D to ITS deployment 29–31
  reaching a decision 39
    data needs 40–1
    data use 41
  six-step process 30–1
  sources of ITS evaluation evidence 41–2
Evaluation Process for Road Transport Telematics study (EVA study) 52
evaluation process of ITS projects 49–51
evaluation results and key findings of intelligent road transport 393–5
evaluation strategies for ITS projects 54
  criteria-based strategy 55
  goal-based strategy 54
  goal-free strategy 54–5
EVA project 235
evidence-based ITS investment decision-making, barriers to 42–3
ex-ante and ex-post evaluation 58–60

factor demand effects 129
fatal crashes, in dry and wet conditions 338–9
FB-ITS 218
FESTA 141, 155, 159
  for driving automation 157
  FESTA Handbook 144
  FESTA V 142–4
FESTA 2008 56
field operational tests (FOTs) 55–8, 141, 242–3, 274
  defined 142
  DRIVE C2X 151
    objectives 151–2
    results 152–3
  driving automation FOTs 153
    FESTA approach 155
    FESTA for driving automation 157
    study designs 156–7
    transportation system usage 156
  euroFOT 144
    deep dive into the methodology 145–6
    results 146–7
    timeline 144–5
  FESTA 141
    FESTA Handbook 144
    FESTA V 142–4
  TeleFOT 147
    analysis results 150–1
    deep dive into the methodology 148–50
    timeline 147–8
Field opErational TeSt support Action (FESTA) 243
financial KPIs 391
fines income 377, 380
fixed-based ITS (FB-ITS) 217–18

flow speed with active system 96
fog sensing module 193
  test and validation of 205–12
frameworks and methods for ITS evaluation 47
  description of ITS 47–8
  essentiality, of ITS evaluation 487
  evaluation strategies for ITS projects 54
    criteria-based strategy 55
    goal-based strategy 54
    goal-free strategy 54–5
  ex-ante and ex-post evaluation 58–60
  field operational tests (FOTs) 55–8
  IT-system as such 48
  IT-system in use 48
  process of evaluation 49–51
  socio-economic evaluation 60
    evaluation of deployment 61–2
    impacts assessment 60
  traditional and commonly used evaluation methods 51
    cost–benefit analysis (BCA) 52
    design science theory 53
    multi-criteria analysis 52–3
fully automated vehicle, price of 272
function, defined 142

'General Guidance for Cost-Benefit Analysis' 164–5
Global Positioning System (GPS) 201, 226, 266, 334, 343, 384
goal-based strategy 54–5
goal-free strategy 54–5
good hypothesis, defined 58
Google 135, 271–2
graduated driver licensing (GDL) systems 267
green-light optimal speed advisory 152
Guangzhou BRT system 345–6, 352, 354
  intersection model on Tiyu East Road 349
  overpass and platform at Gangding Station 250
  simulation evaluation 346–8

hardware in the loop (HIL) 197–9
Hawkesbury River to Mount White Heavy Vehicle Checking Station (HVCS) 327, 329
Headway 96, 153, 270
HEATCO 236
heavy vehicles 335, 378
  distance travelled by 379
  loading of 379–80
  overloading of 370
HERE 272
Highway Pilot 14
Highway Trust Fund 126, 138
history of ITS 6–9
HootSuite 226–7
human–machine interface (HMI) 197, 270, 300
  assessment of 274–5
hypotheses 58

IFSTTAR 196, 199
Impact Assessments (IAs) 60, 146, 220, 248–50, 275–6, 280
impact of ITS, evaluation of 67, 72
  comparison between evaluations 95
    dynamic lanes: *see* dynamic lanes
    indication of the journey time: *see* indication of the journey time
    information services via internet: *see* information services via internet
    ramp metering: *see* ramp metering
    road pricing in urban areas: *see* road pricing in urban areas
    variable speed limits: *see* variable speed limits
  cost database 94
  diffusion of ITS in Europe 67
    European ITS Platform+ (EIP+) 71–2

European guidelines 74–7
general principles of evaluation 73–4
ITS Toolkit 88, 93–4
key performance indicators (KPIs), study on 77
benefit KPIs, calculation of 80
objectives 94–5
Project 2DECIDE 88
Implicit Association Test 288
Inception Impact Assessment 248
information and communication technologies (ICTs) 7–8, 30, 47, 55, 67, 144, 147, 189, 217, 219, 248, 263, 389–90, 401
information services via internet 113
data 114
indicators 113
increase in visits in critical situations 113
information offered 113
number of visitors 113
satisfaction of users 113
users who modify their journey 113
results 115
infrastructure-based automated driving 11
infrastructure-based ITS 10
automatic road law enforcement 10
infrastructure-based automated driving 11
tolling 10
variable speed limits 10–11
emergency vehicle notification systems, eCall 10
infrastructure-to-vehicle (I2V) communication technology 151, 264, 269, 271, 273
insurance-related costs 266
integrated corridor management (ICM) 125
integrated navigation support 8
Intelligent Speed Adaptation (ISA) 201–2
Internet of Things 215–16
Interstate Highway System 126–7, 136, 138
in-vehicle information systems (IVIS) 52, 301
in-vehicle signage & regulatory and contextual speed limit 152
in-vehicle systems, technical assessment of performance of 189
complex system validation 192
latency time 195–6
system granularity 193
technical validation of DF module 193–4
technical validation of sensing modules 193
generic template for 200–1
ISA++ (case study) 201
system analysis 201–5
test and validation of the FOG sensing module 205–12
metrology reminder 190
range, accuracy and precision 190
rates: accuracy in binary classification 190–1
sampling size and sampling method 191–2
sensitivity and operational limits 192
test facilities 196
hardware in the loop (HIL) 197–8
real/virtual approaches 196–7
test and validation tools 198–9
INVENT 276, 278–9
ISA++ (case study) 201
system analysis 201–5
test and validation of FOG sensing module 205–12
ISO TC204 15–16
ITS (Intelligent Transportation Systems), definitions of 3–5
ITS Action Plan 18, 30, 70, 78
ITS Applications Overview 83, 88
ITS Benefits Database 84

ITS Benefits Evaluation Community (IBEC) 30, 42, 397
ITS Costs Database 84–5, 94
ITS Deployment Statistics Database 85–6
ITS Lessons Learned Knowledge Resource 86–8
ITS measures, selection of 309–12, 321–4
ITS Strategic Plan 81–3
ITS Toolkit 89–94
  objectives of 91
IVHS (Intelligent Vehicle Highway Systems) 7

Joint Driver-Vehicle System (JDVS) 197
Joint Programme Office (JPO) 30, 81
journey time 97, 101, 104–5, 107
  variation of 99
journey time, indication of 115
  data 116
  indicators 115
    accuracy of information 115
    mode 115
    safety and emissions 115
    satisfaction of users 115
    users who modify their journey 115
  results 117

key findings of intelligent road transport 393–5
Key Performance Indicators (KPIs) 29, 44, 58, 77, 391, 396
  calculation of benefit KPIs 80
  deployment KPIs 78–80
KONVOI 12

lane-keeping 197, 260, 269–70, 272
  HIL model for 198
Lane Keeping Assistance (LKA) 8
large-scale FOTs (L-FOTs) 147–50
laser guns 10
levels of road vehicle automation, SAE classification for 257–9
location based services (LBS) 225
locus of control 288–9
low scale test bench 199

M1 Motorway 327
MAESTRO 2001 56
maintenance costs 217, 265, 376, 378
market evaluation 62
market introduction 17
MATLAB®/Simulink simulation 198
mental workload 289, 298
METI (Ministry of Economy, Trade and Industry) 7–8
microscopic simulation software 348
Million Vehicle Kilometres Travelled (MVKT) 331, 333, 343
MLIT (Ministry of Land, Infrastructure, Transport and Tourism) 8
Mobility as a Service (MaaS) 135, 225, 268, 276
Motorway Control Systems (MCS) 310, 320–1, 323
  adopted values 320
  application example 320–1
  description 320
  effects based on the studied evaluations and input from workshops 320
Mount White HVCS 329
multi-criteria analysis (MCA) 51–3, 63, 162–3, 170, 177, 183–4
multi-criteria assessment 246

Nadiri's system-wide analysis 132
National Highway Traffic Safety Administration (NHTSA) 133–4
net present value (NPV) 238
  method of calculating 380
network impacts analysis, examples of 131–2

network perspective, ITS evaluation in 123
  autonomous vehicles 133–6
  network creating economic value 127
    economic productivity 128–32
    key concepts 127–8
    network-scale change, general characteristics of 132–3
  network investments, brief history of 124–6
  possible implications 136
  traditional approach to ITS evaluation 123–4
  unanswered questions 137–8
new generation technologies 215
new mobility schemes (NMS) 217
  challenges in evaluating 220–2
  components of 219–20
  evaluation approach for 222–3
Non-Injury crashes, in dry and wet conditions 336
  northbound (NB) 336
  southbound (SB) 337–8
northbound (NB) non-injuries 336, 338, 343
NPA (National Police Agency) 8

Office of the Assistant Secretary for Research and Technology (OST-R) 83
open road 199
operating costs 376, 378
operator monitoring 270
original equipment manufacturers (OEMs) 56
'out-of-the-loop' performance 291, 300
overload control benefit and cost considerations 369
  application 377
    data/inputs needed 377–80
    net present value (NPV), calculating 380
  benefit–cost methodology 374
    benefits 376–7
    costs 375–6
  case study 380
    cost–benefit analysis 383
    eTeza overload control scheme operations 382–3
  effect of overloading 369–70
  need for overarching strategy for the provision of weighbridges 371
  overload compliance measurement 370
  overload control systems 372
    components 372–3
    concept of operations 373–4
  traffic control centres (TCC)
    practical considerations for designing and operating 384–5
    provision of 371
over-trust 288

PATH (Partners for Advanced Transit and Highways) (USA) 7, 12
pavement damage reduction 378–80
pavement deterioration, reduction in 376–7
Percent Road Centre 298
pervasive technology in transport sector 217–19
platoons 8, 12, 14
post-crash warning 152
potential of ITS 67
precision 190
PReVAL 189
principles, of evaluation process 73–4
problems in ITS evaluation 123–4
PROMETHEUS project 7–8, 14
PRO-SIVIC-RECHERCHE 196, 199, 206, 212
PRT (Personal Rapid Transport) 11

queue warning 320–3

Radian 6 226
radio-frequency identification (RFID) 384

ramp metering 101, 315–17, 322
  adopted values 315
  application example 315–17
  data 102–3
  description 315
  effects based on the studied evaluations and input from workshops 315
  indicators 101
    accidents 101
    economic aspects 101
    journey time on a main road 101
    journey time on ramps 101
    junction capacity 101
    main flow speed 101
    safety 101
    variation of the main flow 101
  results 104
    accidents 104
    BCR and time for the return on investment 105
    congestion index 104
    journey time on a main road 104
    journey time on ramps 104
    junction capacity 104
    main flow speed 104
    number of ramps 104
    variation of the main flow 104
range 190
real scale test bench 199
red-light driving 315
reduced road traffic accidents (RTAs) 240
reduced scale test benches 199
Repair and Maintenance Information (RMI) 265
Research and Innovative Technology Administration (RITA) 83
RICARDO 244
ride- and car-sharing services 276
ride-sharing 267–8
  personal security and 267
Road and Maritime Services (RMS) 327–8, 331
road and speed environment 329
  road geometry changes 330–1
  signs and delineation changes 331
  speed changes 330
road link operation condition evaluation 363–4
road markings 263
road network operation speed 362–3
road paving/ re-paving practices 272
road pricing in urban areas 108
  data 110
  indicators 108–9
    accidents variation 109
    average toll 109
    congestion index 109
    costs/benefits analysis 109
    daily passages through gates 109
    dates of beginning and end 108
    hours of operation 108
    interested area 108
    number of gates 108
    passages through gates 108
    population 108
    public opinion 109
    reference period 108
    traffic variation 109
    variation of CO_2 emissions 109
  results 111
    average daily toll 111
    average vehicle speed 111–12
    congestion index 111
    number of gates 111
    passages/day through gates 111
    public opinion 112–13
    variation of daily passages through gates 111
    variation of traffic in the area 111
    variations of pollutant emissions (CO_2) 111
road-side units (RSUs) 151
road vehicle automation, SAE classification for levels of 257–9
road works warning 152–3, 250
roadworthiness testing 266

routing technology 3
RTLX 294, 298
RT-test 299

SAFESPOT 189, 191, 196, 237
safety impact of automated vehicles 261, 269–70
SARTRE (Safe Road Trains for the Environment) 12, 14
screener lane installation 374
SEiSS study 276
SEK20/journey 313
sensing modules
  FOG sensing modules 205
  technical validation of 193
service providers 264–5, 268, 271–3
SEVITS 310
'shared economy' scheme 224
Short Stress State Questionnaire (SSSQ) 294, 299
Simulink 196, 198
situational awareness (SA) 287, 290–1, 299–300
situation awareness 274
Situation Awareness Global Assessment Technique (SAGAT) 294, 299–300
skill degradation 289
Smartway 8
social innovation (SI) schemes 217
  challenges in evaluating 224–5
  definitions of 223–4
  evaluation proposal for SI schemes 225–7
social media use 225
Social Network Analysis 227
Society of Automotive Engineers (SAE) 133
socio-economic assessment 276, 280
socio-economic evaluation 60
  evaluation of deployment
    market assessment 62
    technical assessment 61–2
  impacts assessment 60
software application (App) based scheme, 220
southbound (SB) non-injuries 335–8, 343
SpeedAlert 261
speed limits
  observance of 96, 100, 108
  variable 10–11, 96, 317–18
Speed standard deviation 97, 99, 105
SSVS (Super Smart Vehicle Systems) 7
standard deviation 190
standard deviation of lane position (SDLP) 298
Standardisation of new technologies in ITS 15–16
STEGLITSCONTRAM-IDAS-VIKING 310
Strategic Innovation Promotion Program (SIP) 8
Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis 80
stress 290, 298–9
Sustainable Traffic Management method 161
Swedish Transport Administration (STA) 309–10
system, defined 142
System Usability Scale (SUS) 301
system-wide analysis, of Nadiri 132

Task-related Boredom Scale (TBS) 294, 299
TaxiBot system 271
TC204 15–16
Technical Committee for Transport Telematics and Road Traffic TC 278 15
Technical Coordination Team (TCT) 69
technical feasibility risks 61–2
technology-enabled NMS, evaluation of 219
  challenges in evaluating NMS 220–2

components of NMS 219–20
proposal for evaluation approach 222–3
technology enabled SI schemes, evaluation of 223
challenges in evaluating SI schemes in transport 224–5
definitions of SI in the transport sector 223–4
evaluation proposal for SI schemes in transport 225–7
TeleFOT 144, 147
analysis results 150–1
deep dive into the methodology 148–50
timeline 147–8
Telematics 47
testing and demonstration in ITS 16–17
test tools 198–9
test tracks 15, 196, 199, 207, 274, 295–7
Tierney Page Kirkland Pty Ltd 328
Toekan methodology 161
tolling 10
'track and trace' functionality 226
'tracking and tracing' technologies 27
traditional and commonly used evaluation methods 51
cost–benefit analysis (BCA) 52
design science theory 53
multi-criteria analysis 52–3
traditional approach to ITS evaluation 123–4
traffic control centres (TCC) 374, 382
practical considerations for designing and operating 384
alternative routes 384
cost versus complexity trade-offs (qualitative discussion) 385
overlapping areas of influence 384
screening rate and hours of operation 384
statistical screening errors and variable decision thresholds 384–5
provision of 371
traffic controlled variable speed limits 317–20, 323
adopted values 318
application example 318–20
description 317
effects based on the studied evaluations and input from workshops 317–18
traffic jam ahead warning 152–3
traffic jam assist and platooning 12–14
traffic operation efficiency evaluation 362–4
traffic safety benefit evaluation 365–7
traffic safety-related functions 152
traffic signs 263
traffic volume 96, 105, 339
transcontinental railroads 125
Trans-European intelligent transport systeMs PrOjects (TEMPO) 67–9, 73, 310–11
Trans-European Road Network (TERN) 67
Transport Research & Innovation Portal 42
travel time 166, 269
reduction of 316, 319
travel time/incident information 313, 322
adopted values 313
application example 314–15
description 313
effects based on the studied evaluations and input from workshops 313
trust- and reliance-related issues 288

Unified Theory of Acceptance and Use of Technology (UTAUT) 301
U.S. Department of Transportation (USDOT) ITS programme 81
ITS Strategic Plan 81–3
knowledge resources 83–4
ITS Applications Overview 88
ITS Benefits Database 84
ITS Costs Database 84–5

ITS Deployment Statistics Database 85–6
ITS Lessons Learned Knowledge Resource 86–8
mission 81
Office of the Assistant Secretary for Research and Technology (OST-R) 83
user-related evaluations 287
issues in 288
acceptance 293
automation bias 292
behaviour-related issues 288
boredom 290
complacency 291–2
complacency and bias 292
fatigue 290
locus of control 288–9
mental workload 289
'out-of-the-loop' performance 291
resuming control 289
situational awareness (SA) 290–1
skill degradation 289
stress 290
trust- and reliance-related issues 288
understanding of automation issues 288
usability 292
methods and tools for 295
acceptance 301
behavioural observations 297
boredom 299
complacency 300
fatigue 299
measuring driver performance 296–7
mental workload 298
out-of-the-loop performance problem 300
perceived benefits 301
situational awareness (SA) 299–300
stress 298–9
transfer of control 298
trust and reliance 297–8
understanding the system 297
usability 300–1
research questions, hypotheses and evaluation indicators 293–5
study design 301–2
UTMS (Universal Traffic Management System) 8

V2X connectivity 270
value of statistical life (VSL) 396
VaMoRs (Versuchsfahrzeug für autonome Mobilität und Rechnersehen) system 14
variable message sign (VMS) 49, 217, 252, 313
variable speed limits 10–11, 96
data 98
indicators 96–7
economic aspects 97
flow speed with active system 96
headway 96
impact on the environment 97
impact on users 97
journey time 97
safety 97
speed limits, observance of 96
speed standard deviation 97
traffic volume 96
results 99
accidents 100
average daily flow 99
BCR 100
costs and benefits 100
intervention range 99
number of wounded in accidents 100
observance of speed limits 100
satisfaction of users 100
speed standard deviation 99
variation of air and noise pollution 100
variation of the average daily flow 99
variation of the congestion time 99
variation of the journey time 99

Variable Speed Limit Signs (VSLS) 329
vehicle-based ITS 4, 11
  automation levels
    advance driver assistant systems (ADAS) 12
    autonomous driving 14–15
    dynamic driving task 14–15
    highway pilot 14
    traffic jam assist and platooning 12–14
Vehicle Management Centres (VMC) 144
vehicle miles of travel (VMT) 132, 136, 138
vehicle-sharing 270–1
vehicle testing station (VTS) 372, 382
vehicle-to-infrastructure (V2I) communication technology 151, 264
vehicle-to-vehicle (V2V) communication 151, 269, 273
VEHIL 196, 199
VICS (Vehicle Information and Communication System) 8
Vienna Convention of 1968 97
VIKING project 310
virtual labs 199
virtual tests 196–7
Vissim 348–9
VTTI (Virginia Tech Transportation Institute) 16

weather warning 152
weigh-in-motion (WIM) installations 370, 374, 385
Wet Weather Pilot (WWP) scheme 329, 340, 342
  location map for 328
Wiener Fahrprobe 297
'Wikken enWegen' method 164
willingness to pay (WTP) 61, 314, 340
World Bank 30
World Road Association 28, 30

'Zoetermeer on the move' (case), nine steps for 173
  costs and benefits 175
  description of the case 173
  interaction between the measures 173–5
  multi-criteria analysis 177
  other quantifiable aspects 176
  priority order of the impacts 177
  results and best package of measures 178–9
  sensitivity analysis 177–8
  unquantifiable aspects 176

Evaluation of Intelligent Road Transport Systems

Methods and Results

Intelligent Transport Systems (ITS) use information and communications technologies (ICT) to deliver transport improvements instead of extending physical infrastructure, thereby saving money and reducing environmental impact. This book provides an overview of ICT-based intelligent road transport systems with an emphasis on evaluation methods and recent evaluation results of ITS development and deployment.Topics covered include: ITS evaluation policy; frameworks and methods for ITS evaluation; ITS impact evaluation; the network perspective; field operational tests (FOTs); assessing transport measures using cost-benefit and multi-criteria analysis; technical assessment of the performance of in-vehicle systems; opportunities and challenges in the era of new pervasive technology; evaluation of automated driving functions; user-related evaluation of ADAS (Advanced Driver Assistance Systems) and automated driving; evaluation of traffic management; performance assessment of a wet weather pilot system; case studies from China; heavy vehicle overload control benefit and cost.With chapters from an international panel of leading experts, this book is essential reading for researchers and advanced students from academia, industry and government working in intelligent road transport systems.

Dr. Meng Lu is Vice President of IBEC (ITS Benefits Evaluation Community) and of the IEEE Intelligent Transportation Systems Society (ITSS); she is active in two areas: ICT-based ITS and logistics; and has participated in many European transport initiatives and projects. Dr. Lu is on the Editorial Board of IET Intelligent Transport Systems (ITS).

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