

Index

A

achieving dimension 43
action 141
adaptive collaboration (AC) 292, 296, 298
affluent society 40, 52
agent-based infrastructures (ABI) 341
agent computing environment (ACE) 308, 322, 329
agent technology (AT) 261
agile/virtual enterprise (A/V E) 3
agility 3, 43
Akogrimo 344
ambient intelligence (AmI) 26, 31, 34, 39, 44, 64
ambient intelligence service engineering (AmI SE) 58
ambient intelligence technologies 338

ambiguity 212
AmI information processing module (AmI IPM) 61
analysis 182
application pull 344
application system (AS) 203
artefact transparency 35
AS-IS state 102
assembling and disseminating PM information 182
authorised treatment facilities (ATF) 42
autonomic computing 202
autonomy 262

B

backward value chain 30
bidirectional 147
black-box 47, 86

body language 81
 Bunge-Wand-Weber ontology (BWW ontology) 143
 business-driven approach 286
 business-to-business (B2B) 101, 260, 296, 339
 business-to-business-to-consumer (B2B2C) 296
 business-to-consumer (B2C) 260, 296
 business-to-employee (B2E) 296
 business-to-government (B2G) 296
 business document (BD) 346
 business integration 191, 197, 199, 200
 business networking cluster 337
 business paradigms 64
 business process (BP) 340, 346
 Business Process Execution Language for Web services (BPEL) 285
 Business Process Execution Language for Web Services (BPEL4WS) 340
 business process management (BPM) 191, 192
 Business Process Modeling Language (BPML) 340
 business process modeling notation (BPMN) 199
 Business Process Query Language (BPQL) 340
 business process reengineering (BPR) 195
 business transaction protocol (BTP) 340

C

CAD system 126
 case-based reasoning (CBR) 62
 causal ambiguity 212, 213
 Centro Italiano di Eccellenza per la Logistica Integrata (CIELI) 65
 certification-of-destruction (CoD) 42
 change in scope 75
 chat 16
 classification standards 340
 client 71
 closed loop supply chains 31
 collaboration 340, 347
 collaboration protocol agreement (CPA) 347

collaboration protocol profile (CPP) 347
 collaborative business (c-business) 191
 collaborative networked organization (CNO) 335, 351
 common knowledge base (CKB) 61, 62
 communication diagram 147
 complementarity 43
 complex private agent (CPA) 316
 compulsory regulation 30
 compulsory target 64
 computer-aided design (CAD) 10
 computer aided three-dimensional interactive application (CATIA) 227
 concurrent engineering (CE) 114
 condition monitoring maintenance (CMM) 64
 consolidation 107
 construction file 45
 consumer 28
 continuous monitoring and deviation control 38
 controlled collaborative net 31
 CoreGRID 344
 cost reduction 104
 cross-organizational business process 191
 culture 195
 customer 71, 184, 165

D

database query tool 63
 data mining grid 344
 decision support system (DSS) 64
 degree of control 84
 design 50
 design-for-assembly (DfA) 36
 design-for-disassembly (DfD) 36
 design-for-manufacturing (DfM) 36
 design-for-recycling (DfR) 36
 design moderation module (DMM) 125
 diagnoses 38
 diagnostic engine (DE) 61, 62
 digital ecosystems 338
 digital literacy 69, 96, 220, 240, 279, 292, 334
 DIP project 328
 discovery mechanism 347

document exchange 340
dynamic essential modeling of organization (DEMO) 138

E

e-supply chain moderator (E-SCM) 110, 121
easy configuration 202
ECA rules 311
eco-conservative framework 40
eco-conservative rules 40
eco-costs 45
eco-resource inherent holder 28
economic instruments 64
economies of scale 76
education 182
electric and avionic systems 227
electronic data interchange (EDI) 260
end-of-life goods 32
end-of-life vehicle (ELV) 44
energy 25
energy-using product (EUP) 45
enforceable market 30
engineering moderator (EM) 112
enhanced skills 75
enhance usability 53
enterprise application integration (EAI) 201
enterprise integration (EI) 336
enterprise interoperability 338
enterprise resource planning (ERP) 79, 101, 127
enterprise service bus (ESB) 279, 283
entropy 25
environment protection 50
ERP system 137
EURES, European Employment Services 10
European Research Consortium for Informatics and Mathematics (ERCIM) 65
European Union (EU) 87, 337
event-condition-action (ECA) 311
event-driven architecture (EDA) 288
event-driven process chain (EPC) 199
execute/executor (E) 137, 139

expert system (ES) 261
extended artefact 26, 30
extended collaborative enterprise (ECE) 100
extended enterprise (EE) 96, 156, 162, 168, 175
extended enterprise performance measurement policy and objectives 182
extended enterprises (EE) 30, 97
extended value proposition (EVP) 96, 97, 99
eXtensible Markup Language (XML) 346
external 76, 320
external software system 320
extract, transform, load (ETL) 201

F

fair-trade rules 33
Farshore 84
firm 71
flexible operability 35
flow class 122
forward value chain 30
Foundation for Intelligent Physical Agent (FIPA) 262
free-take-back 45, 48
functional schema 144
functions delivery 37

G

gateway 320
gear 126
generalized enterprise reference architecture and methodology (GERAM) 339
global business knowledge 203
global view 309
glue code 289
graphical user interface (GUI) 62

H

higher added-value 104
holistic visualisation 103
hollowing out 87
HPC4U 344

human-to-PC 300
 human layer 193
 human resources 184
 hybrid KM strategy 231
 Hypertext Markup Language (HTML) 266

I

i-accounting 244
 ICT-support in collaboration networks 190
 IDEFO diagram 14
 ill-running situation/trend monitoring 38
 improve reverse logistics 53
 in-house 84
 individualism 82
 industrial growth 25
 industry operating system 9
 information and communications technology (ICT) 294, 335, 351
 information frame 44
 information intensity 32
 Information Society Technology Programme (ISTAG) 55
 inheritance hierarchy 319
 initiator (I) 137, 139
 inner cluster 31
 insourcing 85
 integrated data-flow management 35
 IntelliGrid 344
 intellectual asset (IA) 240, 246
 intellectual capital (IC) 242
 intelligent social user interface (ISUI) 56
 intelligent user-adaptive access 55
 inter-enterprise interchange 104
 interaction 141
 interface-oriented architecture 280
 interfacing 268
 intermediate 31
 internal perspective 164
 Internet data center (iDC) 302
 intra-organisational PM system 168
 intrinsic property 143
 inverse logistics 40
 investment 40
 isolating mechanism 212

J

joint definitions phase 228

K

K-WF grid 344
 KILT model 53
 knowledge 40, 41, 63, 64, 107, 115, 125, 221, 224, 225, 262
 knowledge-based meta-value chain 107
 knowledge-based system (KBS) 64
 knowledge acquisition module (KAM) 125
 knowledge analysis module (KAM) 61, 63
 knowledge management (KM) 221, 224
 Knowledge Query Manipulation Language (KQML) 262
 knowledge representation model (KRM) 115

L

labour 40
 lackey 82
 language-action perspective (LAP) 137
 language 80, 142
 law 46, 144
 life cycle 24, 27, 51
 local business knowledge 203
 local to-be-concept 205
 location 84
 lower tangibles consumption 44

M

machine-oriented layer 193
 Malcolm Baldrige National Quality Award (MBNQA) 160
 management of technology (MOT) 220, 221
 mandatory rules 58
 mandatory targets 43
 manufacturing model 115
 manufacturing phase 27
 manufacturing system (MS) 117

masculinity 83
 mechanical systems 227
 mediating 268
 mediator agents 268
 medical tourism 86
 meta-enterprise 97
 method innovation 27
 metropolitan area network (MAN) 302
 migration path 103
 model-driven architecture (MDA) 142, 200
 model federation 35
 MOSES research project 114
 MSE ontology 121
 mutual property 143

N

natural capital 41
 natural kind 144
 networked organisation 64
 neutrality 41
 neutral yield 40
 new economy 2
 new product development (NPD) 221
 NextGrid 344
 non-central topology 202
 not in employment, education, or training (NEET) 294

O

object-oriented database system (OODBS) 116
 objective tax collection 32
 Object Management Group (OMG) 142, 200
 off-process setup 37
 offshoring 71
 on-duty artefact 32
 on-process setup 37
 on-the-path 47
 onshore 84
 OntoGrid 344
 ontology acquisition module (OAM) 124
 ontology mapping module (OMM) 125

open buying on the Internet (OBI) 340
 operation surroundings 45
 operative 104
 order (O) 139
 organizational 193
 original equipment manufacturer (OEM) 10
 out-tasking 85
 outcome ambiguity 211, 212, 213
 outsourcing 71
 ownership 84

P

partner interface process (PIP) 349
 payload system 227
 PC-to-PC 300
 peer-to-peer (P2P) 202, 340
 performance and operation 227
 performance management/measurement (PM) 155, 156, 182
 personal offshoring 86
 plug-and-play interoperability 35
 PM effect 182
 PM system 164
 point-of-service 34, 51
 point of withdrawal 30
 power distance 82
 predictive 37
 preventive 38
 priori 38
 private agent (PA) 316
 pro-active mode 38
 process-oriented life-cycle model 190
 process class 122
 process module chain (PMC) 199
 process reengineering 75
 Process Specification Language (PSL) 340
 procurement 9
 product-process-enterprise 34
 product-process design 34
 product development 9
 product dismissal: 45
 production process 45
 product life-cycle cluster 338

product life-cycle management (PLM)
26, 64
product model 114
product part 27
product presentation 107
product 26
product support module (PSM) 61, 63
project class 122
proper aid 51
propulsion 227
Purdue Enterprise Reference Architecture
(PERA) 339
purveyor 33
push-to-talk (PTT) 329

Q

quality of life 44

R

recommender agent 269
recovering efficiency 37
reliability 202
REMA project 265
research and development (R&D) 221,
224, 226
resource description framework (RDF)
123
resource optimisation 44
result (R) 139
retrofit 38
return of investment (ROI) 286
reverse mortgage advisor (Rema) 265
RosettaNet implementation framework
(RNIF) 349
RTD project 248

S

Scalable performance 202
scanner 1, 24, 96, 110, 136, 155, 190,
211, 240, 258, 279, 306, 334,
355
selective data channel 31
semantic 120, 347
Semantic Web 120

service-oriented architecture (SOA) 279
service 26, 27, 28, 30, 40, 54, 64, 78,
80, 315
service agent (SA) 315
service engineering (SE) 26, 27, 28, 30,
40, 54, 64
service level agreement (SLA) 78, 80
setup module (SM) 61, 62
short-term orientation 83
short message system (SMS) 320
SIMDAT 344
simple object access protocol (SOAP) 280
single European electronic market (SEEM)
10
skill-worker 298
small- to medium-sized enterprise (SME)
169
small office or home office (SOHO) 303
SOAP 285
sociability 262
social discrepancy 195
software engineering (SE) 195
source-side agent server 322
sourcing management system 10
specialised links 31
standard enterprise data 35
standardization 75, 182
standard manufacturing data 35
standard product data 35
state function 144
state machine 141, 147
statistical analysis 63
steering groups of development (SG) 227
supervisor agent 269
supplier-perspective 162
supplier interface 164, 165
supplier perspective 164
supply chain 10
supply on-duty cycle 45
support-environment 11
Syntax 120
system architecture 265, 268
systemic innovation capability (SIC) 230
system interface 266, 269

T

tactic 104
 tax on virgin materials 48
 technology 41, 46, 64, 193, 344
 three-tier architecture 190
 thrifty society 41, 52
 TO-BE state 102
 total connectedness 35
 total cost of ownership (TCO) 287
 trading process network (TPN) 86
 transaction 139
 transaction-oriented layer (TOL) 341
 Transaction Authority Markup Language (XAML) 340
 translate 268
 TYPUS-metrics 41

U

ubiquitous communication 55
 ubiquitous computing 55
 uncertainty avoidance 83
 Unified Modeling Language (UML) 136, 138, 340
 UniGrids 344
 universal description, discovery, and integration (UDDI) 280
 University of California San Francisco (UCSF) 83
 use case 141
 user interface agent 268
 user 33

V

value-added chain diagram (VACD) 199
 value chain 39, 41, 44
 VE common model 125
 VE moderator knowledge 132
 vendor 71

V EU framework programmes 25
 virtual enterprise (VE) 2, 3, 8, 12, 119, 122, 125, 129, 132, 279, 307, 335
 virtual enterprise integration (VEI) 2
 virtual enterprises using groupware tools and distributed architectures (VEGA) 341
 virtual industry cluster (VIC) 11
 virtual organization (VO) 335
 virtual reality center (VRC) 227
 voluntary agreement 30, 42, 43, 64

W

waste electrical and electronic equipment (WEEE) 44
 watchdog agent 39
 Web Ontology Language (OWL) 123
 Web Service Description Language (WSDL) 346
 Web services (WS) 203
 Web Services Description Language (WSDL) 280, 285
 Web Services Flow Language (WSFL) 340
 workflow management system (WfMS) 339
 World Wide Web (WWW) 8, 70
 wrapped 289

X

XML Processing Description Language (XPDL) 340
 XML Web services 292
 eXtensible Markup Language (XML) 346

Y

Y2K 71