OntoDiff: lex\_sp-defs-240619 vs lex\_sp-defs-240306

==== === === [ OntoRail Diff ] === === ====
 • target: lex\_sp-defs-240619 (https://glossaries.ontorail.org/LEX\_SP-DEFS/lex\_sp-defs-240619#)
 • versus: lex\_sp-defs-240306 (https://glossaries.ontorail.org/LEX\_SP-DEFS/lex\_sp-defs-240306#)
 • entity types considered: ['lexinfo:AbbreviatedForm', 'ontolex:LexicalEntry', 'ontolex:Form', 'ontolex:LexicalSense', 'ontolex:LexicalConcept']
 • performed: 2024-06-19 13:03:31 +0100
 • duration: 15.6 sec
 • OntoDiff version date: 2024-01-11 16:37:49
 • Ignored predicates: xmi:ea\_localid, xmi:lowerValue\_\_id, xmi:upperValue\_\_id, xmi:source\_\_isNavigable, xmi:coords\_\_ordered, xmi:coords\_\_scale, xmi:containment\_\_position, xmi:virtualInheritance, xmi:target\_\_isNavigable, xmi:source\_\_idref, xmi:target\_\_idref, xmi:type\_\_idref, xmi:labels\_\_rb, xmi:type, xmi:visibility, xmi:isUnique, xmi:upperValue\_\_type, xmi:isDerived, xmi:isDerivedUnion, xmi:isOrdered, xmi:isReadOnly, xmi:isStatic
=== === === === === === === === === === ===

Table Of Content

|  |  |
| --- | --- |
| Modifications Summary | Modifications Details |
|  \* [lexinfo:AbbreviatedForm](#Summary_lexinfo:AbbreviatedForm) \* [ontolex:LexicalEntry](#Summary_ontolex:LexicalEntry) \* [ontolex:Form](#Summary_ontolex:Form) \* [ontolex:LexicalSense](#Summary_ontolex:LexicalSense) \* [ontolex:LexicalConcept](#Summary_ontolex:LexicalConcept) |  \* [lexinfo:AbbreviatedForm](#Details_lexinfo:AbbreviatedForm) \* [ontolex:LexicalEntry](#Details_ontolex:LexicalEntry) \* [ontolex:Form](#Details_ontolex:Form) \* [ontolex:LexicalSense](#Details_ontolex:LexicalSense) \* [ontolex:LexicalConcept](#Details_ontolex:LexicalConcept) |

# Summary

## lexinfo:AbbreviatedForm entities

### 96 lexinfo:AbbreviatedForm in lex\_sp-defs-240619:

### 12 lexinfo:AbbreviatedForm NEW from lex\_sp-defs-240306:

"Basic parameters", CCMS, CCS, ESC, "ETCS L2MB", FSDR, I0, MILS, OPE, "RNE TIS", "Ref. Loc.", "basic ASTP"

### 133 lexinfo:AbbreviatedForm REMOVED from lex\_sp-defs-240306:

2PC, ACID, ACK, AD, ALE, ASP, AU1, AU2, AU3, BIU, Bm, CEPID, COTIF, DCS, DI, DT, DV, Dm, EBD, EBI, ECG, ECM, EF, EIRENE, EIRENE, EMC, EMI, EN, ENE, EOLM, ERATV, ERTMS/ATO, ERTMS/ETCS, ERTMS/FRMCS, ERTMS/GSM-R, ETA, ETA, "ETCS ID", ETH, ETI, ETY, Ep, FFFS, FMEA, FRMR, FSDC, GSM, GSM-R, GSM-R, GUI, HDLC, I, I&A, ID, INF, IS, KAB, KER, KMAC, KS, KSMAC, KTRANS, LCL, LEU, LOC&PAS, LS, LSSMA, LX, MA, MNID, MORANE, NL, NOI, NP, O&M, OBU, OL, OSJD, OTMs, P, "PBD SR", PPP, PPV/PPW, PRM, PRM, PS, PT, RA, RAMS, RDD, RINF, RISC, RP, RQ, RRU, RST, RV, SB, SBD, SH, SM, SN, SR, SREJ, SRT, SaCEPID, SaF, SaPDU, SaS, SaSAP, SaSDU, SaUD, SvL, "TAF/TAP TSI", TCEPID, TCP/IP, TEN, TETA, TP2, TR, TRK, UN, V&V, W, WAG, X, X(D), X(U), XML, XQL, dB, eMLPP, ▼M1 —————

### 21 lexinfo:AbbreviatedForm with a changed IRI from lex\_sp-defs-240306:

Label:"CEN" : IRI changed from lex\_sp-defs-240306:COMITE--EUROPEEN--DE--NORMALISATION\_abbrev to lex\_sp-defs-240619:EUROPEAN--COMMITTEE--FOR--STANDARDIZATION\_abbrev, Label:"CEN" : IRI changed from lex\_sp-defs-240306:EUROPEAN--COMMITTEE--FOR--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION\_abbrev to lex\_sp-defs-240619:EUROPEAN--COMMITTEE--FOR--STANDARDIZATION\_abbrev, Label:"CENELEC" : IRI changed from lex\_sp-defs-240306:EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION--ELECTROTECHNIQUE\_abbrev to lex\_sp-defs-240619:EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDIZATION\_abbrev, Label:"CER" : IRI changed from lex\_sp-defs-240306:COMMUNITY--OF--EUROPEAN--RAILWAYS\_abbrev to lex\_sp-defs-240619:COMMUNITY--OF--EUROPEAN--RAILWAY--AND--INFRASTRUCTURE--COMPANIES\_abbrev, Label:"ERA" : IRI changed from lex\_sp-defs-240306:EUROPEAN--UNION--AGENCY--FOR--RAILWAYS--ALSO--REFERRED--TO--AS--AGENCY\_abbrev to lex\_sp-defs-240619:EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_abbrev, Label:"FFFIS" : IRI changed from lex\_sp-defs-240306:FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_abbrev to lex\_sp-defs-240619:FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_acronym, Label:"FMECA" : IRI changed from lex\_sp-defs-240306:FAILURE--MODE--EFFECT--AND--CRITICALITY--ANALYSIS\_abbrev to lex\_sp-defs-240619:FMECA\_label, Label:"FS" : IRI changed from lex\_sp-defs-240306:FULL--SUPERVISION--MODE\_abbrev to lex\_sp-defs-240619:FUNCTIONAL--SYSTEM\_acronym, Label:"ISO" : IRI changed from lex\_sp-defs-240306:INTERNATIONAL--ORGANISATION--FOR--STANDARDISATION\_abbrev to lex\_sp-defs-240619:INTERNATIONAL--ORGANIZATION--FOR--STANDARDIZATION\_abbrev, Label:"OPE" : IRI changed from lex\_sp-defs-240306:OPERATION--AND--TRAFFIC--MANAGEMENT\_abbrev to lex\_sp-defs-240619:OPERATIONAL--TSI\_abbrev, Label:"OS" : IRI changed from lex\_sp-defs-240306:ON--SIGHT--MODE\_abbrev to lex\_sp-defs-240619:OPERATING--SYSTEM\_acronym, Label:"RIM" : IRI changed from lex\_sp-defs-240306:RESPONSIBLE--IM\_abbrev to lex\_sp-defs-240619:RAIL--INFRASTRUCTURE--MANAGER\_acronym, Label:"RTO" : IRI changed from lex\_sp-defs-240306:RETRANSMISSION--TIMEOUT\_abbrev to lex\_sp-defs-240619:REMOTE--TRAIN--OPERATIONS\_acronym, Label:"SF" : IRI changed from lex\_sp-defs-240306:SYSTEM--FAILURE--MODE\_abbrev to lex\_sp-defs-240619:SAFETY--FRAMEWORK\_acronym, Label:"SL" : IRI changed from lex\_sp-defs-240306:SLEEPING--MODE\_abbrev to lex\_sp-defs-240619:SAFETY--LAYER\_acronym, Label:"TAF" : IRI changed from lex\_sp-defs-240306:TELEMATIC--APPLICATIONS--FOR--FREIGHT\_abbrev to lex\_sp-defs-240619:TELEMATICS--APPLICATIONS--FOR--FREIGHT\_abbrev, Label:"TAP" : IRI changed from lex\_sp-defs-240306:TELEMATICS--APPLICATIONS--FOR--PASSENGERS\_abbrev to lex\_sp-defs-240619:TELEMATICS--APPLICATIONS--FOR--PASSENGER--SERVICES\_abbrev, Label:"UI" : IRI changed from lex\_sp-defs-240306:UNNUMBERED--INFORMATION--HDLC--FRAME\_abbrev to lex\_sp-defs-240619:USER--INTERFACE\_acronym, Label:"UIC" : IRI changed from lex\_sp-defs-240306:UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_abbrev to lex\_sp-defs-240619:INTERNATIONAL--UNION--OF--RAILWAYS\_abbrev, Label:"UIC" : IRI changed from lex\_sp-defs-240306:INTERNATIONAL--UNION--OF--RAILWAYS--UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_abbrev to lex\_sp-defs-240619:INTERNATIONAL--UNION--OF--RAILWAYS\_abbrev, Label:"UNISIG" : IRI changed from lex\_sp-defs-240306:UNIFE--ETCS--WORKING--GROUP\_abbrev to lex\_sp-defs-240619:UNION--INDUSTRY--OF--SIGNALLING\_abbrev

### 8 lexinfo:AbbreviatedForm MODIFIED from lex\_sp-defs-240306:

CCS, COM, ERA, HTTP, IXL, TAF, TSI, TSI

## ontolex:LexicalEntry entities

### 1054 ontolex:LexicalEntry in lex\_sp-defs-240619:

### 139 ontolex:LexicalEntry NEW from lex\_sp-defs-240306:

"1D reference frame", "3D reference frame", "4.2.17.1. ETCS System Compatibility", ATAM, "ATO Automatic Train Operation AoC Area of Control CCS Control Command and Signal...", "Absolute position reference frame", Accuracy, "Add Train", "Angular rate", "Architecture Tradeoff Analysis Method", "Arrival Datetime Change", "Attitude reference frame", Attribute, "Authorised User", "Authorising Entity - Authorising entity means the entity that issues the vehicle...", "Basic parameters", "BuildingBlockConfiguration "configuration.json" document", CCMS, CCS, "CCS - Control-Command and Signalling", CI, "Carriage front end", "Command Control System TSI", "Complete Train Cancellation", Completeness, "Confidence Interval", "Config Item", "Configuration Management System", "Connection Change", "Departure Datetime Change", "Diffuse operational state", "Direct Track Possession / Occupancy", "DistributionJob "distribution-job.json" document", "Driving Strategy", "Driving Strategy Change", "Dynamic Business Rules", ESC, "ETCS L2MB", ETM, Element, "End Occupancy Location", "End Occupancy Time", "Estimated Distance", "Estimated Train Front End Position", "European traffic management", "FFFIS - Form Fit Functional Interface Specification", "FS Deployment Rules", FSDR, "Functional Topology", "Headway Distance", "High level BuildingBlocks", I0, "In this document, the abbreviations "IM" for Infrastructure manager" and "RU" fo...", "Indirect Track Possession / Occupancy", "Indivisible for deployment", "Integration - Integration is the activity to combinate individual units, subsyst...", "Juridical recorder: collecting and storing juridical data (e.g. JRU data: SUBSET...", "Kinematic data", "Localisation Information", "Logging: is the activity of keeping a list of events that occur in a computer sy...", "Logical Architecture Concept", "MDS - Multi Display System; alternative naming for Train Display System, not yet...", MILS, "Map Data", "Maximum Stopping Time", "Maximum Waiting Time", "Minimum Circulation Time", "Minimum Stopping Time", "Monitoring: continuous supervision of the system condition for diagnostic or pro...", "Multiple Independent Levels of Security or Safety", NTCC, "National Traffic Control Centre", "National Traffic Management System", OI, "OMS - Online Monitoring System", "OMTS - On Board Multimedia & Telematics System (X2R4, equivalent with Passenger...", OPE, "On-Board Map Data", "Operational Interfaces", "Operational TSI", "Orchestration Interface", "PIS - Passenger Information System", "Partial Train Cancelation", "Passenger Information Time", "Pay Load Type", "Platform Change", "Platform Change Time", Procedure, "Prognostics: is the ability to predict an impeding failure of a system based on...", "Properties Topology", "Quality attribute", "RINF - RINF means Register of Infrastructure. The RINF comprehensively describes...", "RNE TIS", RTCC, "RailNetEurope Train Information System", "Railway Hazard", "Reaction Time", "Ref. Loc.", "Regional traffic control centre", "Relative position", "Route Change", "SPT1-railway System - Common business Objectives (rev. 63268)", "Segment Profile", "Sensitivity points", "Shared Cybersecurity Services", "Skip Stop", "Start Occupancy Location", "Start Occupancy Time", Supplier, "Supporting Information", "System Hazard", "T2OD - Task 2: Operational Design Domain", TO, "TSI CCS 2023 - 4.1.1. Basic parameters", "Technical user", "Threat landscape", Timestamp, "Track Change", "Track Topology", "Tradeoff points", "Train Activate", "Train Consist Change", "Train Deactivate", "Train Sequence Change", "Train Standby", "Train dynamic data", "Train front end", "Train true acceleration", "Train true position", "Train true speed", User, "Valid localisation information", Velocity, "XML Schema Definition", XSD, "basic ASTP", "basic Advanced Safe Train Positioning (basic ASTP)", "delete - CCS Configuration Manifest", nTMS

### 1257 ontolex:LexicalEntry REMOVED from lex\_sp-defs-240306:

"\* The CI is a permanent established body or association to be financed through a...", "\* The TCG is an institutionalized and recognized body in the sector, with the ro...", 2PC, AB, AC, AC, ACID, ACK, ACKNOWLEDGEMENT, "ACKNOWLEDGEMENT, DRIVER", AD, AIRGAP, "AIRGAP LANGUAGE", ALE, APN, "APPLICATION LEVEL", AR, ASP, ATC, "ATO Automatic Train Operation CCS Control Command and Signaling CI/CD Continuous...", ATP, AU1, AU2, AU3, "AUTHENTICATION KEY", "AUTOMATIC DRIVING MODE", "AUTOMATIC TRAIN PROTECTION", "Access Point Name", "Access party", "Accessibility data", "Actual point (RP)", "Adaptation & redundancy management Layer Entity", Agency, "Alert limit", "Allocation Body", "Alternating current", Applicant, "Arrival date/time, actual", "Arrival date/time, estimated", "Arrival date/time, planned", "Arrival delay, actual", "Arrival delay, expected", "At the discretion of", "Atomicity, Consistency, Isolation, Durability", "Attributing system", Attributor, "Authentication Key (same as KMAC)", "Authentication Response", "Authorised Public Body", "Authorising train movements", "Automatic Train Control", "Axle Load speed Profile", "Axle load", BAC, BALISE, "BALISE GROUP", "BALISE GROUP CO-ORDINATE SYSTEM", "BALISE GROUP LOCATION REFERENCE", "BALISE TRANSMISSION MODULE", "BALISE, FIXED", "BALISE, SWITCHABLE", BASELINE, "BASELINE RELEASE", BCD, BIU, BLOCK, "BRAKING CURVE", "BRAKING DISTANCE, EMERGENCY", "BRAKING DISTANCE, SERVICE", BTM, "Balanced Asynchronous Class", "Basic parameter", "Binary Coded Decimal", "Block train", Bm, Booking, "Booking (selling)", "Brake Interface Unit, used with regards to STM", "Braking systems independent of wheel-rail adhesion conditions", "Building Block Configuration Manifest", CA, CAB, "CAB, ACTIVE", "CCS - Command Control Signalling", "CCS Configuration", "CCS Configuration Management System", "CCS Configuration Manifest", CEBD, CEPID, CFM, "CLEAR (A SIGNAL)", CN-code, "COMMON-MODE FAULT", "CONDITIONAL LEVEL TRANSITION ORDER", "CONDITIONS, MAINTENANCE", "CONDITIONS, OPERATING", "CONDITIONS, SYSTEM", "CONFLICTING MOVEMENTS", "CONTACT LENGTH", "CONTINOUS DATA TRANSMISSION", "CONTROL CENTRE", COTIF, COTS-product, CRC, CRITICALITY, CS, "CS MODE", CSM, CSM, CSPDN, CT, "CURRENT POSITION", Cant, "Cant deficiency", "Capacity Plan and Decision Processing", "Capella viewpoint", "Car carrier", Carrier, "Carrier, Joint", "Carrier, Sole", "Ceiling Speed Monitoring", "Certification framework for CCS On-Board Subsystem", Channel, "Circuit Switched", "Circuit Switched Public Data Network", Coach, "Coach ID", "Combined road-rail transport | Combined Transport", "Comité Européen de Normalisation", Commission, "Common Interface", "Common crossing", "Communication Functional Module", "Community of European Railways", Competence, "Compiled energy billing data", "Connection EndPoint IDentifier", "Consignee | Goods receiver", Consignment, "Consignment note", "Consignment order", "Consignor | Shipper | Goods sender", "Contact force", "Contact line system", "Contact wire uplift", "Control Channel", "Convention Concerning International Carriage by Rail (Convention relative aux Transports Internationaux Ferroviaires)", "Cooperation mode", "Cost of damage to environment", "Cost of delays as a consequence of accidents", "Cost of material damage to rolling stock or infrastructure", Crosswind, "Current collector", "Cyclic Redundancy Code", DA, "DANGER (ASPECT)", "DANGER POINT", "DATA ENCRYPTION STANDARD (DES)", "DATA INTEGRITY", DC, DC, DCE, DCM, DCS, "DECELERATION DATA", "DEFAULT VALUE", "DELETION (of a message)", DES, "DES KEY", DESK, DF, DI, DIVERSITY, DMI, DP, "DRIVER IDENTITY", "DRIVER MACHINE INTERFACE", "DRIVING ON SIGHT", DT, DTE, "DUAL CAB ENGINE", DV, "DYNAMIC SPEED PROFILE", Data, "Data Communication Equipment", "Data Encryption Standard", "Data Terminal Equipment", Decibels, Decryption, "Definition as per DIRECTIVE (EU) 2016/797 of 11 May 2016 on the interoperability...", "Degraded operation", Delay, "Delta deviation", "Departure date/time, actual", "Departure date/time, estimated", "Departure date/time, planned", "Departure delay, actual", "Departure delay, expected", "Design phase for CCS On-Board Subsystem", "Design track gauge", "Design value", "Despatch | Dispatch", "Destination Address", "Diesel Multiple Unit", "Difference Value between the Permitted Speed to e.g. DV\_EBIminEmergency Brake Intervention speed (minimum) DV\_EBImax Emergency Brake Intervention speed (maximum)", "Digital Capacity Management", "Direct Current", "Direct train", "Direction Flag", "Directive 2008/57", Disconnect, Display, "Distance between track centres", "Distribution Job", Distributor, Dm, "Domain Name Server", "Domestic journey", "Domestic rail passenger service", Driver, "Driving Coach", "Driving Trailer", "Driving Van", "Duty holder", "Dynamic lateral force", EB, EBCL, EBD, EBI, EC, EC, ECG, ECM, ECMT, EEIG, EF, EIRENE, EIRENE, EMC, "EMERGENCY BRAKING", EMI, EN, EN, "EN Line Category", "END OF AUTHORITY", "END OF LOOP MARKER", "END OF MOVEMENT AUTHORITY", ENE, ENGINE, "ENGINE ORIENTATION", "ENTRANCE SIGNAL", EOLM, "EQUIPPED LINE", ERATV, ERTMS/ATO, ERTMS/ETCS, "ERTMS/ETCS ON-BOARD EQUIPMENT", ERTMS/FRMCS, ERTMS/GSM-R, "ESTIMATED POSITION", "ESTIMATED SPEED", ETA, ETA, ETA, "ETCS ID", "ETCS ID type field in a SaPDU", "ETCS IDENTITY", ETH, ETH, ETI, ETI, ETP, ETS, ETY, EU, EUROBALISE, EUROLOOP, EURORADIO, EVC, "EXIT SIGNAL", "EXPECTATION WINDOW", "Each Use Case is represented as the sequence of events that, from the identifica...", Earthworks, "Electric Multiple Unit", "Electro Cardiogram", Electro-pneumatic, "Electromagnetic Compatibility", "Electromagnetic Interference", "Elementary File (SIM Card)", "Emergency Brake Confidence Level", "Emergency Brake Deceleration Curve", "Emergency Brake Intervention supervision limit", "Emergency call", "Emergency exit", Encryption, "End of authority passed without permission", End-of-Loop-Marker, Energy, "Enhanced Multi-Level Precedence and Pre-emption", "Enhanced Odometry", Ep, "Equivalent conicity", "Essential requirements", "Estimated Time of Arrival", Euro-norm, "European Capacity Management Tool", "European Committee for Electrotechnical Standardisation (Comité Européen de Normalisation Electrotechnique)", "European Committee for Standardisation (Comité Européen de Normalisation)", "European Community", "European Economic Interest Group.", "European Integrated Radio Enhanced Network", "European Integrated Railway Radio Enhanced Network", "European Norm", "European Railway Agency", "European Register of Authorised Types of Vehicles", "European Telecommunication Standard", "European Union", "European Union Agency for Railways (also referred to as Agency)", "European Vital Computer", "European instruction", "European specification", Evacuation, "Exceptional transport", "Extended Mark-up Language", "Extended Structured Query Language", FAULT, "FAULT NEGATION TIME", FFFS, "FIXED BLOCK", FMEA, "FORM FIT FUNCTIONAL INTERFACE SPECIFICATION (FFFIS)", "FORWARD MOVEMENT", "FOULING POINT", FRMR, "FRaMe Reject", "FS Deployment Configuration", FSDC, FTP, "FULL SUPERVISION MODE", "FUNCTIONAL INTERFACES SPECIFICATION (FIS)", "FUNCTIONAL MODULE", "Failure Mode and Effects Analysis", "Failure Mode, Effect and Criticality Analysis", Fare, "File Transfer Protocol", "First Authentication message", "Fixed Rake of Coaches", "Fixed nose protection", "Flangeway depth", "Flangeway width", "Forecast Time", "Forecast point", "Foreign rail passenger service", "Foreign sale", "Form-Fit Functional Interface Specification", "Form-Fit Functional Specification", "Free wheel passage at check rail/wing rail entry", "Free wheel passage at crossing nose", "Free wheel passage in switches", Fulfilment, "Full-rate traffic channel", "Functional Requirement Specification", GPRS, GSM, GSM-R, GSM-R, GUI, GUI, Gateway, Gauge, "General Conditions of Carriage", "General Packet Radio Service", "General operation", "Global System for Mobile Communications", "Global System for Mobile Communications – Railways", "Global System for Mobile Communications — Rail", "Global price train", "Graphical User Interface", "Gross weight of load", "Guidance curve", HBW, HDLC, "HOME KMC", "HS code", "Handling point", "Handover point", Haulage, "Health and Safety Conditions", "Height of check rail", "High level Data Link Control", Hirer, "Hot axle box", I, I&A, ID, "IM Entry Point", "IM Exit Point", "IMMEDIATE LEVEL TRANSITION ORDER", "IN ADVANCE OF", "IN REAR OF", "INDEPENDENCE, TECHNICAL", INF, "INFILL INFORMATION", "INFILL LOOP", "INFORMATION POINT", "INSERTION (of a new message)", "INTERMITTENT TRANSMISSION", "INTEROPERABILITY CONSTITUENT", "INTEROPERABILITY, OPERATIONAL", "INTEROPERABILITY, TECHNICAL", INTERVENTION, IP, IRT, IS, ISDN, "ISOLATION MODE", ITU, "Identification and Authentication", "Immediate Action Limit", "In service value", "Indication supervision limit", "Infrastructure inspection vehicles", "Infrastructure manager (IM)", "Initial assessment framework for CCS On-Board Subsystem", "Inner coupling", "Integrated Reservation Tickets", "Integrated Services Digital Network", Interchange, "Interchange between Carriers", "Interchange point", "Intermediate point", "Intermodal Loading Unit", "Intermodal Service Integrator", "Intermodal terminal", "Intermodal transport", "International Electro-technical Commission", "International Organisation for Standardisation", "International Standardisation Organisation", "International Telecommunication Union", "International Union of Railways (Union Internationale des Chemins de fer)", "International journey", "International rail passenger service", "International sale", "Internet Protocol", "Interoperable wheelchair transportable by train", "Intersection point (IP)", "Intervention Limit", "Isolated defect", Issuer, "JURIDICAL DATA", Journey, "Journey planner", "Journey section", KAB, KER, KERNEL, KEY, "KEY MANAGEMENT", "KEY MANAGEMENT CENTRE", "KEY MANAGEMENT SYSTEM", "KEY VALIDITY PERIOD", KM, "KM DOMAIN", KMAC, KMC, KMS, KS, KSMAC, KTRANS, "KVB, Ebicab, RSDD", Keeper, LAPB, "LAST RELEVANT BALISE GROUP", LCL, "LEADING ENGINE", LEU, LEVEL, "LEVEL 0", "LEVEL 0 AREA", "LEVEL 1", "LEVEL 1 AREA", "LEVEL 2", "LEVEL 2 AREA", "LEVEL NTC", "LEVEL NTC AREA", "LEVEL TRANSITION ANNOUNCEMENT", "LEVEL TRANSITION BORDER", "LEVEL TRANSITION INFORMATION", "LEVEL TRANSITION ORDER", "LIFECYCLE (SYSTEM)", "LIFECYCLE COST (SYSTEM)", "LIMIT OF AUTHORITY", "LIMITED SUPERVISION MODE", LINE, "LINE SIDE ELECTRONIC UNIT", "LINE SIDE EQUIPMENT", LINKING, "LINKING DISTANCE", "LINKING INFORMATION", LOA, LOC&PAS, "LOCAL TIME", "LOCATION ITEM", LOOP, "LOOP MESSAGE FORMAT", "LOOP TRANSMISSION MODULE", LRBG, LRU, LRU, LS, LSSMA, LTM, LUC, LX, "Lateral deviation", "Lead Railway Undertaking", "Length of train", "Less than Container Loads", "Level access", "Level crossing", "Line Under Construction", "Line speed", "Link Access Protocol Balanced", "Loco ID", Locomotive, "Locomotives and passenger rolling stock", "Logical Architectur Concept", "Lowest Supervised Speed within the Movement Authority", MA, MA, MAC, "MAIN SIGNAL", MALFUNCTION, MANDATORY, "MANUAL LEVEL CHANGE", "MAX SAFE ANTENNA POSITION", "MAX SAFE FRONT END", MAY, "MESSAGE AUTHENTICATION CODE (MAC)", "MIN SAFE ANTENNA POSITION", "MIN SAFE FRONT END", "MINOR FAILURE", MISSION, "MISSION, ETCS", MNID, "MNID list is a list of Mobile Network IDs.", "MODIFICATION (of a message)", MORANE, "MOST RESTRICTIVE SPEED PROFILE", "MOVEMENT AUTHORITY", MRDT, MRSP, MT, MTI, "MULTIPLE UNITS", MUST, "MUST NOT", "Maintenance file", "Maintenance plan", "Make available", Management, "Mandatory feature", "Mandatory parameter", "Manifest on list", "Market price", "Mean contact force", "Mean useful voltage train", "Mean useful voltage zone", "Message Authentication Code", "Message Type Identifier", Metadata, "Minimum contact wire height", "Mobile Radio for Railway Networks in Europe", "Mobile Termination", "Most Relevant Displayed Target", "Multi-rail track", "Multiple operation", "NATIONAL SYSTEM MODE", "NATIONAL TRAIN CONTROL SYSTEM", "NATIONAL VALUES", NL, "NO POWER MODE", NOI, "NON-EQUIPPED LINE", "NON-LEADING MODE", NON-VITAL, NP, NPDU, NRT, "NRT train", NSAP, NSDU, NT, NTC, "National Add-on", "National Train Control", "National instruction", "Network Protocol Data Unit", "Network Service Access Point", "Network Service Data Unit", "Network Termination", Noise, "Nominal contact wire height", "Nominal track gauge", "Nominal voltage", "Non Leading mode", "Non-integrated Reservation Tickets", "Normal service", "Notified bodies", O&M, OBU, OCCUPIED, OCL, "ODOMETER ACCURACY", "ODOMETRY REFERENCE LOCATION", "OFF-LINE KMS", OL, "OMS - On-board Monitoring System", "ON SIGHT MODE", "ON-BOARD EQUIPMENT", "ON-BOARD RECORDING DEVICE", "ON-BOARD UNIT", "ON-LINE KMS", "OPERATED SYSTEM VERSION", ORBG, OSI, OSJD, OSS, "OTHER REFERENCE BALISE GROUP", OTMs, "OVER-READING AMOUNT", OVERLAP, "Obstacle-free route", Offer, "Official website", "On track Machines", "On-board control-command and signalling", "On-board lift", "On-board ramp", "On-board systems", "On-ground energy data collecting system (data collecting service)", "One Stop Shop (OSS)", "One stop shop", "Open Access mode", "Open System Interconnection", "Operating Language", "Operation and Maintenance", "Operation and Traffic Management", "Operational instruction", "Optional feature/Option", "Organisation for Cooperation between Railways", "Overhead contact line", P, PACKET, PADDING, PANTOGRAPH, "PARTIAL SUPERVISION MODES", "PBD SR", PCS, PDN, PDP, PDU, "PERMISSIVE SIGNAL", "PERMITTED SPEED", PIM, PKI, PKI, POINT, "POSSESSION, OF SIGNALLING EQUIPMENT", "POST TRIP MODE", PPP, PPV/PPW, PRM, PRM, "PROCEED ASPECT", "PROTECTED WRONG SIDE FAILURE", PS, PS, "PS MODE", "PS SERVICE SETUP", "PS STATUS", PSD, PSTN, PT, "PUBLIC KEY INFRASTRUCTURE (PKI)", "Packet Data Network", "Packet Data Protocol", "Packet Switched", "Packet Switched Data", "Passenger area", "Passive Shunting mode", "Passive provision", Path, "Path Coordination System", "Path assembly", "Path number", Payment, Peer-to-Peer, "Performance Parameter", "Performance monitoring", "Permitted Braking Distance Speed Restriction", "Permitted speed supervision limit", "Person with disabilities and person with reduced mobility", "Person with reduced mobility", "Persons with reduced mobility", "Physical Scenario", "Place of delivery", "Place of departure", "Place of destination | Place of arrival", "Plain line", "Planning IM", Platform, "Point retraction", "Point to Point Protocol", "Power Head", "Power Unit", "Pre-departure Period", "Primary data", Product, "Production phase for CCS On-Board Subsystem", "Protocol Data Unit", "Public Key Infrastructure", "Public Switched Telephone Network", Publish, "Put into Service", QoS, Qualification, "Quality of Service", RA, "RADIO COMMUNICATION SYSTEM", "RADIO HOLE", "RADIO INFILL UNIT", "RADIO NETWORK TYPE, ETCS", RAMS, RAP, "RBC AREA", "RBC/RBC BORDER", "RBC/RBC HANDOVER", "RBC/RBC TRANSITION", RDD, RECOMMENDED, REDUNDANCY, "RELEASE SPEED", RELIABILITY, RELOCATION, REPETITION/REPLAY, "REVERSE MOVEMENT", "REVERSING MODE", "REVOCATION OF MOVEMENT AUTHORITY", "RIGHT SIDE FAILURE", RINF, RIS, RISC, RIU, RIV, ROUTE, "ROUTE RELEASE", "ROUTE SUITABILITY DATA", RP, RQ, RRU, RSM, RST, RV, "Radio In-fill Unit", "Rail Interoperability and Safety Committee", "Rail inclination", "Rail pad", "Rail system", Railcar, "Railway Infrastructure Manager", "Railway Infrastructure System", "Railway Operating Company", "Railway tunnel", ReQuest, "Reference Document Database (https://rdd.era.europa.eu/RDD/)", "Reference contour", "Register of Infrastructure", "Regular vs. Short Term processes", "Release Speed Monitoring", "Release date/time", "Release time for wagons", "Reliability, Availability, Maintainability, (Safety)", "Reporting point", Repository, ResPonse, "Rescue coupling", Reservation, "Reservation system", "Responsible Applicant", "Responsible Applicant (RA)", "Responsible IM", "Responsible RU", "Responsible RU (RRU)", Retailer, "Retransmission TimeOut", "Return circuit", "Reverse curve", "Roll Away Protection", "Rolling Stock", "Route section", "Russian abbreviation for Prawila Polzowaniia Wagonami w mejdunarodnom soobqenii = Rules for use of railway vehicles in international traffic", SA, SABME, "SAFE CONSIST LENGTH, ETCS", "SAFE DECELERATION", SAFETY, "SAFETY ACCEPTANCE", "SAFETY LIFE CYCLE", SAP, SB, SBD, SECTION, "SECTION TIMER", SECURITY, "SEMI-CONTINUOUS TRANSMISSION", "SERVICE BRAKE COMMAND, ETCS", "SERVICE BRAKING", "SESSION, COMMUNICATION", "SET SPEED", SFM, SH, SHALL, SHOULD, "SHOULD NOT", "SHUNTING MODE", "SHUNTING MOVEMENT", "SHUNTING SIGNAL", SIGNAL, "SIGNAL LOCATION", "SIGNALLING SYSTEM", SIL, "SINGLE ON-BOARD LOCATION REFERENCE", "SLAVE ENGINE", "SLEEPING MODE", SM, SMS, SN, SOLR, SPAD, "SPECIFIC TRANSMISSION MODULE", "SPEED CONFIDENCE INTERVAL", "SPOT TRANSMISSION", SQL, SR, SREJ, SRT, SSP, "STAFF RESPONSIBLE MODE", "STANDBY MODE", "STANDSTILL, ETCS", "STATIC SPEED PROFILE", STATION, STM, "STOP SIGNAL", SUB-SYSTEM, "SUPERVISED MANOEUVRE MODE", "SUPPORTED SYSTEM VERSION", "SYSTEM FAILURE MODE", "SYSTEM LIFE-CYCLE", "SYSTEM VERSION", "SYSTEMATIC FAULT", SaCEPID, SaF, SaPDU, SaS, SaSAP, SaSDU, SaUD, "Safe Connection EndPoint IDentifier", "Safe Functional Module", "Safe area", "Safety Features", "Safety Information", "Safety Instructions", "Safety Integrity Level", "Safety Management System", "Safety Protocol Data Unit", "Safety Service", "Safety Service Access Point", "Safety Service Data Unit", "Safety User Data", "Safety in Railway Tunnels", "Safety-critical task", "Scheduled Timetable", "Scheduled stop", "Scheduled time of departure", "Second Authentication message", "Sectional Runtime Calculation", "Selective REJect", Selling, Service, "Service Access Point", "Service Brake Deceleration Curve", "Service Brake or in the context of modes, Stand By mode", "Service Disruption", "Service Provider", "Session Key", "Session Key (same as KSMAC)", "Set Asynchronous Balanced Mode Extended", "Shared Security Services", Shipment, "Short Term processes", "Short notice path request", Shunter, Siding, "Signal Passed at Danger", "Signal Passed at Danger when passing a danger point", "Signal Passed at Danger without passing a danger point", Signaller, SoM, "Source Address", Staff, Stakeholders, "Start of Mission", "Static contact force", "Station Manager", "Step-free route", "Stop aspect", "Stopping point", "Structure gauge", "Structured Query Language", "Substitute carrier", "Substitution in the framework of maintenance", "Supervised Location", "Supplier Certified Software: it implies that the suppliers provide software deve...", SvL, "Swing nose", "Switches and crossings", "System National mode", "System Requirement Specification", "System mission (deprecated)", "TAF/TAP TSI", TANDEM, TARGET, TCEPID, TCP, TCP/IP, TELEGRAM, "TEMPORARY SPEED RESTRICTION", TEN, TETA, TETA, TI, TIU, TL, "TMS Daily Topology", TOD, TP, TP2, TPDU, TPS, TR, "TRACK CONDITION", "TRACK DESCRIPTION", "TRACK FREE", "TRACK GEOMETRY", "TRACK OCCUPIED", "TRACK-TO-TRAIN TRANSMISSION", "TRACKSIDE EQUIPMENT", "TRACTION UNIT", "TRAIN DATA", "TRAIN DETECTION", "TRAIN INTEGRITY", "TRAIN INTERFACE UNIT", "TRAIN MOVEMENT", "TRAIN ORIENTATION, ETCS", "TRAIN POSITION CONFIDENCE INTERVAL", "TRAIN TRIP", "TRAIN-TO-TRACK TRANSMISSION", "TRANSITION BUFFER", TRANSITIONS, "TRANSMISSION MODE TABLE", TRANSPONDER, "TRIP MODE", TRIPLE-KEY, TRK, TS, "TS = ticketing system; to be provided by Central Instance to allow information o...", TSAP, TSDU, TSM, TSR, TTI, "Tactile Controls", "Tactile Signs", "Target Speed Monitoring", Tariff, "Technical Document", "Technical Specification for Interoperability relating to Telematics...", "Telematic Applications for Freight", "Telematics Applications for Passengers", "Temporary Capacity Restriction", "Term Status Description Operating state draft The operating state describes the...", "The ATO part of ERTMS", "The ETCS part of ERTMS", "The FRMCS part of ERTMS", "The GSM-R part of ERTMS", "Third Authentication message", "Third party", "Through route", "Through ticket", Ticket, "Ticket Controlling Organisation", "Ticket On departure", "Ticket vendor", "Time to Indication", Timetable, "Timing point", "Topology Master Data Validation & Import", "Tour Operator", Tracing, "Track design", "Track gauge", "Track twist", Tracking, Trackside, "Trackside control-command and signalling", "Traction Cut Off", "Train Estimated time of Arrival", "Train Interface", "Train Localisation", "Train Protection System", "Train Time of Estimated Arrival", "Train crew", "Train despatch", "Train length", "Train path", "Train preparation", "Train running interrupted", Trainset, "Trans-European Network", "Trans-European rail network", Transhipment, "Transmission Control Protocol", "Transmission Control Protocol/Internet Protocol", "Transport Connection", "Transport Connection EndPoint IDentifier", "Transport Key", "Transport Protocol", "Transport Protocol Class 2", "Transport Protocol Data Unit", "Transport Service", "Transport Service Access Point", "Transport Service Data Unit", "Transport contract", "Transport mode", "Transport service provider", "Trip plan", "Two-Phase Commit", UA, UDMP, UN, "UNCOMMISSIONED AREA", "UNDER-READING AMOUNT", "UNFITTED AREA", "UNFITTED MODE", "UNIFE ETCS Working group", "UNPROTECTED WRONG SIDE FAILURE", UTC, "Unauthorised Direction Movement Protection", "Unauthorised movement", "Unguided length of an obtuse crossing", "Union Internationale des Chemins de Fer", "Union rail system", "Unit Load", "Unit capacity used", "Unit train", "Universal Time Co-ordinated", "Unnumbered Acknowledge", "Unnumbered Information (HDLC frame)", "Usable length of a platform", "Use of this parameter is a user option", "Use of this parameter is a user option. If not provided, a default value will be used", V&V, VALIDATION, VALIDATOR, VARIABLE, VBC, VERIFICATION, VERIFIER, "VIRTUAL BALISE COVER", VITAL, Van, "Vehicle in operation", "Verification and Validation", W, WAG, WARNING, WHEELSLIDE, WHEELSLIP, WK, "WRONG SIDE FAILURE", Wagon, "Wagon Keepers", "Wagon load", "Warning supervision limit", Waybill, "Work passenger", X, X(D), X(U), XML, XQL, [OAB], "[OAB] [Entities/actors]", "[OAB] [Process Involvement]", "[OAIB] [Operational Process]", "[OCB] [Involvement]", "[OCB] [Structure]", "[OES] [Operational Process] [scenario]", "[OPD] [Operational Process] [logic]", "acceptable means of compliance", "acceptable national means of compliance", "accident involving the transport of dangerous goods", "accident to persons involving rolling stock in motion", accreditation, "active level crossing", "actor variant", allocation, "alternative route", "area of operation", "area of use of a vehicle", "attempted suicide", "authorised representative", "bridging plate", "broken axle on rolling stock in service", "broken rail", "broken wheel on rolling stock in service", "built according to existing design", "capacity-enhancement plan", causes, certificate, "collision of train with obstacle within the clearance gauge", "collision of train with rail vehicle", "common safety methods", "common safety targets", "competent authority", "conformity assessment", "conformity assessment body", "congested infrastructure", consignee, consignor, "contracting entity", "contractual agreement", coordination, "cross-border agreement", dB, "dangerous goods", "death (killed person)", "derailment of train", "design operating state", "development of the railway infrastructure", eMLPP, "employee or contractor", "end coupling", "entity in charge of maintenance", "existing rail system", "extensive disruptions to traffic", "extent of operation", "external coupling", filler, "fire in rolling stock", "fixed formation", "framework agreement", "harmonised standard", "heavy maintenance", "high speed passenger services", "infrastructure capacity", "intermediate coupling", "international freight service", "international passenger service", investigation, investigator-in-charge, "level crossing accident", "level crossing user", licence, "licensing authority", "light rail", "line km", loader, m, "maintenance of the railway infrastructure", "management board", message, "mobile subsystem", "moveable step", "national accreditation body", "national rules", network, "network statement", "operation of the railway infrastructure", "operator of service facility", "other (accident)", "other crew members performing safety-critical tasks", "other person at a platform", "other person not at a platform", passage, passenger, "passenger train", passenger-km, "passive level crossing", "person with disabilities", "placing in service", "placing on the market", "predefined formation(s)", "project at an advanced stage of development", "public private partnership", "railway infrastructure", "railway system", "reasonable profit", "regional services", renewal, "renewal of the railway infrastructure", road, "safety authorisation", "safety certificate", "sectioning locations", "separation sections", series, "serious injury (seriously injured person)", "service facility", "significant accident", "significant damage to stock, track, other installations or environment", "specific case", "storage siding", substations, subsystems, suicide, "supervisory board", "technical specification", "track buckle or other track misalignment", "track km", train, "train driver", train-km, "training centre", tram-train, transit, trespasser, type, "type of operation", unfiller, unit, unloader, "upgrade of the railway infrastructure", upgrading, "urban and suburban services", vehicle, "vertically integrated undertaking", "viable alternative", "working timetable", "wrong side signalling failure", "‘essential functions’ of infrastructure management", ▼B, ▼M1 —————, ▼M1 —————

### 38 ontolex:LexicalEntry with a changed IRI from lex\_sp-defs-240306:

Label:"CCMS" : IRI changed from lex\_sp-defs-240306:CCS--CONFIGURATION--MANAGEMENT--SYSTEM\_acronym to lex\_sp-defs-240619:CONFIGURATION--MANAGEMENT--SYSTEM\_abbrev, Label:"CEN" : IRI changed from lex\_sp-defs-240306:EUROPEAN--COMMITTEE--FOR--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION\_abbrev to lex\_sp-defs-240619:EUROPEAN--COMMITTEE--FOR--STANDARDIZATION\_abbrev, Label:"CEN" : IRI changed from lex\_sp-defs-240306:COMITE--EUROPEEN--DE--NORMALISATION\_abbrev to lex\_sp-defs-240619:EUROPEAN--COMMITTEE--FOR--STANDARDIZATION\_abbrev, Label:"CENELEC" : IRI changed from lex\_sp-defs-240306:EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION--ELECTROTECHNIQUE\_abbrev to lex\_sp-defs-240619:EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDIZATION\_abbrev, Label:"CER" : IRI changed from lex\_sp-defs-240306:COMMUNITY--OF--EUROPEAN--RAILWAYS\_abbrev to lex\_sp-defs-240619:COMMUNITY--OF--EUROPEAN--RAILWAY--AND--INFRASTRUCTURE--COMPANIES\_abbrev, Label:"CI" : IRI changed from lex\_sp-defs-240306:COMMON--INTERFACE\_acronym to lex\_sp-defs-240619:CONFIDENCE--INTERVAL\_acronym, Label:"CST" : IRI changed from lex\_sp-defs-240306:COMMON--SAFETY--TARGETS\_acronym to lex\_sp-defs-240619:CST\_label, Label:"DNS" : IRI changed from lex\_sp-defs-240306:DOMAIN--NAME--SERVER\_acronym to lex\_sp-defs-240619:DOMAIN--NAME--SYSTEM\_acronym, Label:"ERA" : IRI changed from lex\_sp-defs-240306:EUROPEAN--UNION--AGENCY--FOR--RAILWAYS--ALSO--REFERRED--TO--AS--AGENCY\_abbrev to lex\_sp-defs-240619:EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_abbrev, Label:"ERA" : IRI changed from lex\_sp-defs-240306:EUROPEAN--RAILWAY--AGENCY\_acronym to lex\_sp-defs-240619:EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_abbrev, Label:"FFFIS" : IRI changed from lex\_sp-defs-240306:FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_abbrev to lex\_sp-defs-240619:FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_acronym, Label:"FMECA" : IRI changed from lex\_sp-defs-240306:FAILURE--MODE--EFFECT--AND--CRITICALITY--ANALYSIS\_abbrev to lex\_sp-defs-240619:FMECA\_label, Label:"FRS" : IRI changed from lex\_sp-defs-240306:FUNCTIONAL--REQUIREMENT--SPECIFICATION\_acronym to lex\_sp-defs-240619:FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_acronym, Label:"FS" : IRI changed from lex\_sp-defs-240306:FULL--SUPERVISION--MODE\_abbrev to lex\_sp-defs-240619:FUNCTIONAL--SYSTEM\_acronym, Label:"IEC" : IRI changed from lex\_sp-defs-240306:INTERNATIONAL--ELECTRO-TECHNICAL--COMMISSION\_acronym to lex\_sp-defs-240619:INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_acronym, Label:"IM" : IRI changed from lex\_sp-defs-240306:IM\_label to lex\_sp-defs-240619:INFRASTRUCTURE--MANAGER\_acronym, Label:"ISO" : IRI changed from lex\_sp-defs-240306:INTERNATIONAL--ORGANISATION--FOR--STANDARDISATION\_abbrev to lex\_sp-defs-240619:INTERNATIONAL--ORGANIZATION--FOR--STANDARDIZATION\_abbrev, Label:"ISO" : IRI changed from lex\_sp-defs-240306:INTERNATIONAL--STANDARDISATION--ORGANISATION\_acronym to lex\_sp-defs-240619:INTERNATIONAL--ORGANIZATION--FOR--STANDARDIZATION\_abbrev, Label:"OPE" : IRI changed from lex\_sp-defs-240306:OPERATION--AND--TRAFFIC--MANAGEMENT\_abbrev to lex\_sp-defs-240619:OPERATIONAL--TSI\_abbrev, Label:"OS" : IRI changed from lex\_sp-defs-240306:ON--SIGHT--MODE\_abbrev to lex\_sp-defs-240619:OPERATING--SYSTEM\_acronym, Label:"RIM" : IRI changed from lex\_sp-defs-240306:RAILWAY--INFRASTRUCTURE--MANAGER\_acronym to lex\_sp-defs-240619:RAIL--INFRASTRUCTURE--MANAGER\_acronym, Label:"RIM" : IRI changed from lex\_sp-defs-240306:RESPONSIBLE--IM\_abbrev to lex\_sp-defs-240619:RAIL--INFRASTRUCTURE--MANAGER\_acronym, Label:"ROC" : IRI changed from lex\_sp-defs-240306:RAILWAY--OPERATING--COMPANY\_acronym to lex\_sp-defs-240619:RAIL--OPERATING--COMPANY\_acronym, Label:"RTO" : IRI changed from lex\_sp-defs-240306:RETRANSMISSION--TIMEOUT\_abbrev to lex\_sp-defs-240619:REMOTE--TRAIN--OPERATIONS\_acronym, Label:"RU" : IRI changed from lex\_sp-defs-240306:RU\_label to lex\_sp-defs-240619:RAIL--UNDERTAKINGS\_acronym, Label:"SF" : IRI changed from lex\_sp-defs-240306:SYSTEM--FAILURE--MODE\_abbrev to lex\_sp-defs-240619:SAFETY--FRAMEWORK\_acronym, Label:"SL" : IRI changed from lex\_sp-defs-240306:SLEEPING--MODE\_abbrev to lex\_sp-defs-240619:SAFETY--LAYER\_acronym, Label:"SRS" : IRI changed from lex\_sp-defs-240306:SYSTEM--REQUIREMENT--SPECIFICATION\_acronym to lex\_sp-defs-240619:SRS\_label, Label:"TAF" : IRI changed from lex\_sp-defs-240306:TELEMATIC--APPLICATIONS--FOR--FREIGHT\_abbrev to lex\_sp-defs-240619:TELEMATICS--APPLICATIONS--FOR--FREIGHT\_abbrev, Label:"TAP" : IRI changed from lex\_sp-defs-240306:TELEMATICS--APPLICATIONS--FOR--PASSENGERS\_abbrev to lex\_sp-defs-240619:TELEMATICS--APPLICATIONS--FOR--PASSENGER--SERVICES\_abbrev, Label:"TC" : IRI changed from lex\_sp-defs-240306:TRANSPORT--CONNECTION\_acronym to lex\_sp-defs-240619:TECHNICAL--COMMITTEE\_acronym, Label:"TCO" : IRI changed from lex\_sp-defs-240306:TRACTION--CUT--OFF\_acronym to lex\_sp-defs-240619:TCO\_label, Label:"TCO" : IRI changed from lex\_sp-defs-240306:TICKET--CONTROLLING--ORGANISATION\_acronym to lex\_sp-defs-240619:TCO\_label, Label:"TCR" : IRI changed from lex\_sp-defs-240306:TEMPORARY--CAPACITY--RESTRICTION\_acronym to lex\_sp-defs-240619:TEMPORARY--CAPACITY--RESTRICTIONS\_acronym, Label:"UI" : IRI changed from lex\_sp-defs-240306:UNNUMBERED--INFORMATION--HDLC--FRAME\_abbrev to lex\_sp-defs-240619:USER--INTERFACE\_acronym, Label:"UIC" : IRI changed from lex\_sp-defs-240306:UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_abbrev to lex\_sp-defs-240619:INTERNATIONAL--UNION--OF--RAILWAYS\_abbrev, Label:"UIC" : IRI changed from lex\_sp-defs-240306:INTERNATIONAL--UNION--OF--RAILWAYS--UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_abbrev to lex\_sp-defs-240619:INTERNATIONAL--UNION--OF--RAILWAYS\_abbrev, Label:"UNISIG" : IRI changed from lex\_sp-defs-240306:UNIFE--ETCS--WORKING--GROUP\_abbrev to lex\_sp-defs-240619:UNION--INDUSTRY--OF--SIGNALLING\_abbrev

### 59 ontolex:LexicalEntry MODIFIED from lex\_sp-defs-240306:

ATO, Authentication, CCS, CMS, COM, Configuration, "Configuration Management", Constraint, "Control-Command and Signalling", Cross-Acceptance, ERA, ERTMS, ETCS, ETSI, "European Rail Traffic Management System", "European Train Control System", FIS, FRMCS, FRS, HTTP, IEC, IM, "INTEROPERABILITY CONSTITUENTS", IXL, Interlocking, Interoperability, MTBF, Maintainability, Manufacturer, "Mean time between failure", Mode, "Moving Block", NSA, "National Safety Authority", "Operational Hazard", RBC, RU, "Radio Block Centre", "Reference Location", Risk., "Roll Away", SRS, "Specification Task", System, "System Actor", TAF, TMS, TSI, TSI, "Technical Specifications for Interoperability", "Terminal operator", "Train Running Number", accident, customer, fail-safe, failure, "fault detection time", incident, "safe state"

## ontolex:Form entities

### 1070 ontolex:Form in lex\_sp-defs-240619:

### 140 ontolex:Form NEW from lex\_sp-defs-240306:

1D--REFERENCE--FRAME\_lexForm, 3D--REFERENCE--FRAME\_lexForm, 4-2-17-1---ETCS--SYSTEM--COMPATIBILITY\_lexForm, 4-2-17-1---ETCS--SYSTEM--COMPATIBILITY\_lexForm\_2, ABSOLUTE--POSITION--REFERENCE--FRAME\_lexForm, ACCURACY\_lexForm, ADD--TRAIN\_lexForm, ANGULAR--RATE\_lexForm, ARCHITECTURE--TRADEOFF--ANALYSIS--METHOD\_lexForm, ARCHITECTURE--TRADEOFF--ANALYSIS--METHOD\_lexForm\_2, ARCHITECTURE--TRADEOFF--ANALYSIS--METHOD\_lexForm\_3, ARRIVAL--DATETIME--CHANGE\_lexForm, ATO--AUTOMATIC--TRAIN--OPERATION--AOC--AREA--OF--CONTROL--CCS--CONTROL--COMMAND--AND--SIGNAL\_lexForm, ATTITUDE--REFERENCE--FRAME\_lexForm, ATTRIBUTE\_lexForm, AUTHORISED--USER\_lexForm, AUTHORISING--ENTITY-----AUTHORISING--ENTITY--MEANS--THE--ENTITY--THAT--ISSUES--THE--VEHICLE\_lexForm, BASIC--ADVANCED--SAFE--TRAIN--POSITIONING--BASIC--ASTP\_lexForm, BASIC--ADVANCED--SAFE--TRAIN--POSITIONING--BASIC--ASTP\_lexForm\_2, BUILDINGBLOCKCONFIGURATION--\_CONFIGURATION-JSON\_--DOCUMENT\_lexForm, CARRIAGE--FRONT--END\_lexForm, CCS-----CONTROL-COMMAND--AND--SIGNALLING\_lexForm, COMMAND--CONTROL--SYSTEM--TSI\_lexForm, COMMAND--CONTROL--SYSTEM--TSI\_lexForm\_2, COMPLETE--TRAIN--CANCELLATION\_lexForm, COMPLETENESS\_lexForm, CONFIDENCE--INTERVAL\_lexForm, CONFIDENCE--INTERVAL\_lexForm\_2, CONFIG--ITEM\_lexForm, CONFIGURATION--MANAGEMENT--SYSTEM\_lexForm, CONFIGURATION--MANAGEMENT--SYSTEM\_lexForm\_2, CONNECTION--CHANGE\_lexForm, DELETE-----CCS--CONFIGURATION--MANIFEST\_lexForm, DEPARTURE--DATETIME--CHANGE\_lexForm, DIFFUSE--OPERATIONAL--STATE\_lexForm, DIRECT--TRACK--POSSESSION--\_--OCCUPANCY\_lexForm, DISTRIBUTIONJOB--\_DISTRIBUTION-JOB-JSON\_--DOCUMENT\_lexForm, DRIVING--STRATEGY--CHANGE\_lexForm, DRIVING--STRATEGY\_lexForm, DYNAMIC--BUSINESS--RULES\_lexForm, ELEMENT\_lexForm, END--OCCUPANCY--LOCATION\_lexForm, END--OCCUPANCY--TIME\_lexForm, ESTIMATED--DISTANCE\_lexForm, ESTIMATED--TRAIN--FRONT--END--POSITION\_lexForm, EUROPEAN--TRAFFIC--MANAGEMENT\_lexForm, EUROPEAN--TRAFFIC--MANAGEMENT\_lexForm\_2, FFFIS-----FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexForm, FS--DEPLOYMENT--RULES\_lexForm, FS--DEPLOYMENT--RULES\_lexForm\_2, FUNCTIONAL--TOPOLOGY\_lexForm, HEADWAY--DISTANCE\_lexForm, HIGH--LEVEL--BUILDINGBLOCKS\_lexForm, IN--THIS--DOCUMENT--THE--ABBREVIATIONS--\_IM\_--FOR--INFRASTRUCTURE--MANAGER\_--AND--\_RU\_--FO\_lexForm, INDIRECT--TRACK--POSSESSION--\_--OCCUPANCY\_lexForm, INDIVISIBLE--FOR--DEPLOYMENT\_lexForm, INTEGRATION-----INTEGRATION--IS--THE--ACTIVITY--TO--COMBINATE--INDIVIDUAL--UNITS--SUBSYST\_lexForm, JURIDICAL--RECORDER---COLLECTING--AND--STORING--JURIDICAL--DATA--E-G---JRU--DATA---SUBSET\_lexForm, KINEMATIC--DATA\_lexForm, LOCALISATION--INFORMATION\_lexForm, LOGGING---IS--THE--ACTIVITY--OF--KEEPING--A--LIST--OF--EVENTS--THAT--OCCUR--IN--A--COMPUTER--SY\_lexForm, LOGICAL--ARCHITECTURE--CONCEPT\_lexForm, MAP--DATA\_lexForm, MAXIMUM--STOPPING--TIME\_lexForm, MAXIMUM--WAITING--TIME\_lexForm, MDS-----MULTI--DISPLAY--SYSTEM--ALTERNATIVE--NAMING--FOR--TRAIN--DISPLAY--SYSTEM--NOT--YET\_lexForm, MINIMUM--CIRCULATION--TIME\_lexForm, MINIMUM--STOPPING--TIME\_lexForm, MONITORING---CONTINUOUS--SUPERVISION--OF--THE--SYSTEM--CONDITION--FOR--DIAGNOSTIC--OR--PRO\_lexForm, MOVING--BLOCK\_lexForm\_2, MULTIPLE--INDEPENDENT--LEVELS--OF--SECURITY--OR--SAFETY\_lexForm, MULTIPLE--INDEPENDENT--LEVELS--OF--SECURITY--OR--SAFETY\_lexForm\_2, NATIONAL--TRAFFIC--CONTROL--CENTRE\_lexForm, NATIONAL--TRAFFIC--CONTROL--CENTRE\_lexForm\_2, NATIONAL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm, NATIONAL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_2, OMS-----ONLINE--MONITORING--SYSTEM\_lexForm, OMTS-----ON--BOARD--MULTIMEDIA--AND--TELEMATICS--SYSTEM--X2R4--EQUIVALENT--WITH--PASSENGER\_lexForm, ON-BOARD--MAP--DATA\_lexForm, OPERATIONAL--INTERFACES\_lexForm, OPERATIONAL--INTERFACES\_lexForm\_2, OPERATIONAL--TSI\_lexForm, OPERATIONAL--TSI\_lexForm\_2, ORCHESTRATION--INTERFACE\_lexForm, ORCHESTRATION--INTERFACE\_lexForm\_2, PARTIAL--TRAIN--CANCELATION\_lexForm, PASSENGER--INFORMATION--TIME\_lexForm, PAY--LOAD--TYPE\_lexForm, PIS-----PASSENGER--INFORMATION--SYSTEM\_lexForm, PLATFORM--CHANGE--TIME\_lexForm, PLATFORM--CHANGE\_lexForm, PROCEDURE\_lexForm, PROGNOSTICS---IS--THE--ABILITY--TO--PREDICT--AN--IMPEDING--FAILURE--OF--A--SYSTEM--BASED--ON\_lexForm, PROPERTIES--TOPOLOGY\_lexForm, QUALITY--ATTRIBUTE\_lexForm, RAILNETEUROPE--TRAIN--INFORMATION--SYSTEM\_lexForm, RAILNETEUROPE--TRAIN--INFORMATION--SYSTEM\_lexForm\_2, RAILWAY--HAZARD\_lexForm, REACTION--TIME\_lexForm, REFERENCE--LOCATION\_lexForm\_2, REGIONAL--TRAFFIC--CONTROL--CENTRE\_lexForm, REGIONAL--TRAFFIC--CONTROL--CENTRE\_lexForm\_2, RELATIVE--POSITION\_lexForm, RINF-----RINF--MEANS--REGISTER--OF--INFRASTRUCTURE---THE--RINF--COMPREHENSIVELY--DESCRIBES\_lexForm, ROUTE--CHANGE\_lexForm, SEGMENT--PROFILE\_lexForm, SENSITIVITY--POINTS\_lexForm, SHARED--CYBERSECURITY--SERVICES\_lexForm, SKIP--STOP\_lexForm, SPT1-RAILWAY--SYSTEM-----COMMON--BUSINESS--OBJECTIVES--REV---63268\_lexForm, START--OCCUPANCY--LOCATION\_lexForm, START--OCCUPANCY--TIME\_lexForm, SUPPLIER\_lexForm, SUPPORTING--INFORMATION\_lexForm, SYSTEM--HAZARD\_lexForm, T2OD-----TASK--2---OPERATIONAL--DESIGN--DOMAIN\_lexForm, TECHNICAL--USER\_lexForm, TERMINAL--OPERATOR\_lexForm\_2, THREAT--LANDSCAPE\_lexForm, TIMESTAMP\_lexForm, TRACK--CHANGE\_lexForm, TRACK--TOPOLOGY\_lexForm, TRADEOFF--POINTS\_lexForm, TRAIN--ACTIVATE\_lexForm, TRAIN--CONSIST--CHANGE\_lexForm, TRAIN--DEACTIVATE\_lexForm, TRAIN--DYNAMIC--DATA\_lexForm, TRAIN--FRONT--END\_lexForm, TRAIN--SEQUENCE--CHANGE\_lexForm, TRAIN--STANDBY\_lexForm, TRAIN--TRUE--ACCELERATION\_lexForm, TRAIN--TRUE--POSITION\_lexForm, TRAIN--TRUE--SPEED\_lexForm, TSI--CCS--2023-----4-1-1---BASIC--PARAMETERS\_lexForm, TSI--CCS--2023-----4-1-1---BASIC--PARAMETERS\_lexForm\_2, USER\_lexForm, VALID--LOCALISATION--INFORMATION\_lexForm, VELOCITY\_lexForm, XML--SCHEMA--DEFINITION\_lexForm, XML--SCHEMA--DEFINITION\_lexForm\_2

### 1343 ontolex:Form REMOVED from lex\_sp-defs-240306:

%27ESSENTIAL--FUNCTIONS\_--OF--INFRASTRUCTURE--MANAGEMENT\_lexForm, %2A--THE--CI--IS--A--PERMANENT--ESTABLISHED--BODY--OR--ASSOCIATION--TO--BE--FINANCED--THROUGH--A\_lexForm, %2A--THE--TCG--IS--AN--INSTITUTIONALIZED--AND--RECOGNIZED--BODY--IN--THE--SECTOR--WITH--THE--RO\_lexForm, ACCEPTABLE--MEANS--OF--COMPLIANCE\_lexForm, ACCEPTABLE--NATIONAL--MEANS--OF--COMPLIANCE\_lexForm, ACCESS--PARTY\_lexForm, ACCESS--POINT--NAME\_lexForm, ACCESS--POINT--NAME\_lexForm\_2, ACCESSIBILITY--DATA\_lexForm, ACCIDENT--INVOLVING--THE--TRANSPORT--OF--DANGEROUS--GOODS\_lexForm, ACCIDENT--TO--PERSONS--INVOLVING--ROLLING--STOCK--IN--MOTION\_lexForm, ACCREDITATION\_lexForm, ACKNOWLEDGEMENT--DRIVER\_lexForm, ACKNOWLEDGEMENT\_lexForm, ACKNOWLEDGEMENT\_lexForm\_2, ACTIVE--LEVEL--CROSSING\_lexForm, ACTOR--VARIANT\_lexForm, ACTUAL--POINT--RP\_lexForm, AC\_lexForm, ADAPTATION--AND--REDUNDANCY--MANAGEMENT--LAYER--ENTITY\_lexForm, ADAPTATION--AND--REDUNDANCY--MANAGEMENT--LAYER--ENTITY\_lexForm\_2, AGENCY\_lexForm, AIRGAP--LANGUAGE\_lexForm, AIRGAP\_lexForm, ALERT--LIMIT\_lexForm, ALLOCATION--BODY\_lexForm, ALLOCATION--BODY\_lexForm\_2, ALLOCATION--BODY\_lexForm\_3, ALLOCATION\_lexForm, ALTERNATING--CURRENT\_lexForm, ALTERNATING--CURRENT\_lexForm\_2, ALTERNATIVE--ROUTE\_lexForm, APPLICANT\_lexForm, APPLICATION--LEVEL\_lexForm, AREA--OF--OPERATION\_lexForm, AREA--OF--USE--OF--A--VEHICLE\_lexForm, ARRIVAL--DATE\_TIME--ACTUAL\_lexForm, ARRIVAL--DATE\_TIME--ESTIMATED\_lexForm, ARRIVAL--DATE\_TIME--PLANNED\_lexForm, ARRIVAL--DELAY--ACTUAL\_lexForm, ARRIVAL--DELAY--EXPECTED\_lexForm, AT--THE--DISCRETION--OF\_lexForm, ATO--AUTOMATIC--TRAIN--OPERATION--CCS--CONTROL--COMMAND--AND--SIGNALING--CI\_CD--CONTINUOUS\_lexForm, ATOMICITY--CONSISTENCY--ISOLATION--DURABILITY\_lexForm, ATOMICITY--CONSISTENCY--ISOLATION--DURABILITY\_lexForm\_2, ATTEMPTED--SUICIDE\_lexForm, ATTRIBUTING--SYSTEM\_lexForm, ATTRIBUTOR\_lexForm, AUTHENTICATION--KEY--SAME--AS--KMAC\_lexForm, AUTHENTICATION--KEY--SAME--AS--KMAC\_lexForm\_2, AUTHENTICATION--KEY\_lexForm, AUTHENTICATION--KEY\_lexForm\_2, AUTHENTICATION--RESPONSE\_lexForm, AUTHENTICATION--RESPONSE\_lexForm\_2, AUTHORISED--PUBLIC--BODY\_lexForm, AUTHORISED--REPRESENTATIVE\_lexForm, AUTHORISING--TRAIN--MOVEMENTS\_lexForm, AUTOMATIC--DRIVING--MODE\_lexForm, AUTOMATIC--DRIVING--MODE\_lexForm\_2, AUTOMATIC--TRAIN--CONTROL\_lexForm, AUTOMATIC--TRAIN--CONTROL\_lexForm\_2, AUTOMATIC--TRAIN--OPERATION\_lexForm\_4, AUTOMATIC--TRAIN--PROTECTION\_lexForm, AUTOMATIC--TRAIN--PROTECTION\_lexForm\_2, AUTOMATIC--TRAIN--PROTECTION\_lexForm\_3, AXLE--LOAD--SPEED--PROFILE\_lexForm, AXLE--LOAD--SPEED--PROFILE\_lexForm\_2, AXLE--LOAD\_lexForm, BALANCED--ASYNCHRONOUS--CLASS\_lexForm, BALANCED--ASYNCHRONOUS--CLASS\_lexForm\_2, BALISE--FIXED\_lexForm, BALISE--GROUP--CO-ORDINATE--SYSTEM\_lexForm, BALISE--GROUP--LOCATION--REFERENCE\_lexForm, BALISE--GROUP\_lexForm, BALISE--SWITCHABLE\_lexForm, BALISE--TRANSMISSION--MODULE\_lexForm, BALISE--TRANSMISSION--MODULE\_lexForm\_2, BALISE\_lexForm, BASELINE--RELEASE\_lexForm, BASELINE\_lexForm, BASIC--PARAMETER\_lexForm, BINARY--CODED--DECIMAL\_lexForm, BINARY--CODED--DECIMAL\_lexForm\_2, BLOCK--TRAIN\_lexForm, BLOCK\_lexForm, BOOKING--SELLING\_lexForm, BOOKING\_lexForm, BRAKE--INTERFACE--UNIT--USED--WITH--REGARDS--TO--STM\_lexForm, BRAKE--INTERFACE--UNIT--USED--WITH--REGARDS--TO--STM\_lexForm\_2, BRAKING--CURVE\_lexForm, BRAKING--DISTANCE--EMERGENCY\_lexForm, BRAKING--DISTANCE--SERVICE\_lexForm, BRAKING--SYSTEMS--INDEPENDENT--OF--WHEEL-RAIL--ADHESION--CONDITIONS\_lexForm, BRIDGING--PLATE\_lexForm, BROKEN--AXLE--ON--ROLLING--STOCK--IN--SERVICE\_lexForm, BROKEN--RAIL\_lexForm, BROKEN--WHEEL--ON--ROLLING--STOCK--IN--SERVICE\_lexForm, BUILDING--BLOCK--CONFIGURATION--MANIFEST\_lexForm, BUILT--ACCORDING--TO--EXISTING--DESIGN\_lexForm, CAB--ACTIVE\_lexForm, CAB\_lexForm, CANT--DEFICIENCY\_lexForm, CANT\_lexForm, CAPACITY--MANAGEMENT--SYSTEM\_lexForm\_3, CAPACITY--PLAN--AND--DECISION--PROCESSING\_lexForm, CAPACITY-ENHANCEMENT--PLAN\_lexForm, CAPELLA--VIEWPOINT\_lexForm, CAR--CARRIER\_lexForm, CARRIER--JOINT\_lexForm, CARRIER--SOLE\_lexForm, CARRIER\_lexForm, CAUSES\_lexForm, CA\_lexForm, CCS-----COMMAND--CONTROL--SIGNALLING\_lexForm, CCS--CONFIGURATION--MANAGEMENT--SYSTEM\_lexForm, CCS--CONFIGURATION--MANAGEMENT--SYSTEM\_lexForm\_2, CCS--CONFIGURATION--MANIFEST\_lexForm, CCS--CONFIGURATION\_lexForm, CEILING--SPEED--MONITORING\_lexForm, CEILING--SPEED--MONITORING\_lexForm\_2, CERTIFICATE\_lexForm, CERTIFICATION--FRAMEWORK--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexForm, CHANNEL\_lexForm, CIRCUIT--SWITCHED--PUBLIC--DATA--NETWORK\_lexForm, CIRCUIT--SWITCHED--PUBLIC--DATA--NETWORK\_lexForm\_2, CIRCUIT--SWITCHED\_lexForm, CIRCUIT--SWITCHED\_lexForm\_2, CLEAR--A--SIGNAL\_lexForm, CN-CODE\_lexForm, COACH--ID\_lexForm, COACH\_lexForm, COLLISION--OF--TRAIN--WITH--OBSTACLE--WITHIN--THE--CLEARANCE--GAUGE\_lexForm, COLLISION--OF--TRAIN--WITH--RAIL--VEHICLE\_lexForm, COMBINED--ROAD-RAIL--TRANSPORT--COMBINED--TRANSPORT\_lexForm, COMITE--EUROPEEN--DE--NORMALISATION\_lexForm, COMITE--EUROPEEN--DE--NORMALISATION\_lexForm\_2, COMMISSION\_lexForm, COMMON--CROSSING\_lexForm, COMMON--INTERFACE\_lexForm, COMMON--INTERFACE\_lexForm\_2, COMMON--INTERFACE\_lexForm\_3, COMMON--SAFETY--METHODS\_lexForm, COMMON--SAFETY--METHODS\_lexForm\_2, COMMON--SAFETY--TARGETS\_lexForm, COMMON--SAFETY--TARGETS\_lexForm\_2, COMMON-MODE--FAULT\_lexForm, COMMUNICATION--FUNCTIONAL--MODULE\_lexForm, COMMUNICATION--FUNCTIONAL--MODULE\_lexForm\_2, COMMUNITY--OF--EUROPEAN--RAILWAYS\_lexForm, COMMUNITY--OF--EUROPEAN--RAILWAYS\_lexForm\_2, COMPETENCE\_lexForm, COMPETENT--AUTHORITY\_lexForm, COMPILED--ENERGY--BILLING--DATA\_lexForm, COMPILED--ENERGY--BILLING--DATA\_lexForm\_2, COMPILED--ENERGY--BILLING--DATA\_lexForm\_3, CONDITIONAL--LEVEL--TRANSITION--ORDER\_lexForm, CONDITIONS--MAINTENANCE\_lexForm, CONDITIONS--OPERATING\_lexForm, CONDITIONS--SYSTEM\_lexForm, CONFLICTING--MOVEMENTS\_lexForm, CONFORMITY--ASSESSMENT--BODY\_lexForm, CONFORMITY--ASSESSMENT\_lexForm, CONGESTED--INFRASTRUCTURE\_lexForm, CONNECTION--ENDPOINT--IDENTIFIER\_lexForm, CONNECTION--ENDPOINT--IDENTIFIER\_lexForm\_2, CONSIGNEE--GOODS--RECEIVER\_lexForm, CONSIGNEE\_lexForm, CONSIGNMENT--NOTE\_lexForm, CONSIGNMENT--ORDER\_lexForm, CONSIGNMENT\_lexForm, CONSIGNOR--SHIPPER--GOODS--SENDER\_lexForm, CONSIGNOR\_lexForm, CONTACT--FORCE\_lexForm, CONTACT--LENGTH\_lexForm, CONTACT--LINE--SYSTEM\_lexForm, CONTACT--WIRE--UPLIFT\_lexForm, CONTINOUS--DATA--TRANSMISSION\_lexForm, CONTRACTING--ENTITY\_lexForm, CONTRACTUAL--AGREEMENT\_lexForm, CONTROL--CENTRE\_lexForm, CONTROL--CHANNEL\_lexForm, CONTROL--CHANNEL\_lexForm\_2, CONTROL-COMMAND--AND--SIGNALLING\_lexForm\_3, CONVENTION--CONCERNING--INTERNATIONAL--CARRIAGE--BY--RAIL--CONVENTION--RELATIVE--AUX--TRANSPORTS--INTERNATIONAUX--FERROVIAIRES\_lexForm, CONVENTION--CONCERNING--INTERNATIONAL--CARRIAGE--BY--RAIL--CONVENTION--RELATIVE--AUX--TRANSPORTS--INTERNATIONAUX--FERROVIAIRES\_lexForm\_2, COOPERATION--MODE\_lexForm, COORDINATION\_lexForm, COST--OF--DAMAGE--TO--ENVIRONMENT\_lexForm, COST--OF--DELAYS--AS--A--CONSEQUENCE--OF--ACCIDENTS\_lexForm, COST--OF--MATERIAL--DAMAGE--TO--ROLLING--STOCK--OR--INFRASTRUCTURE\_lexForm, COTS-PRODUCT\_lexForm, CRITICALITY\_lexForm, CROSS-BORDER--AGREEMENT\_lexForm, CROSSWIND\_lexForm, CS--MODE\_lexForm, CT\_lexForm, CURRENT--COLLECTOR\_lexForm, CURRENT--POSITION\_lexForm, CYCLIC--REDUNDANCY--CODE\_lexForm, CYCLIC--REDUNDANCY--CODE\_lexForm\_2, DANGER--ASPECT\_lexForm, DANGER--POINT\_lexForm, DANGER--POINT\_lexForm\_2, DANGEROUS--GOODS\_lexForm, DATA--COMMUNICATION--EQUIPMENT\_lexForm, DATA--COMMUNICATION--EQUIPMENT\_lexForm\_2, DATA--ENCRYPTION--STANDARD--DES\_lexForm, DATA--ENCRYPTION--STANDARD\_lexForm, DATA--ENCRYPTION--STANDARD\_lexForm\_2, DATA--INTEGRITY\_lexForm, DATA--TERMINAL--EQUIPMENT\_lexForm, DATA--TERMINAL--EQUIPMENT\_lexForm\_2, DATA\_lexForm, DATA\_lexForm\_2, DC\_lexForm, DEATH--KILLED--PERSON\_lexForm, DECELERATION--DATA\_lexForm, DECIBELS\_lexForm, DECIBELS\_lexForm\_2, DECRYPTION\_lexForm, DEFAULT--VALUE\_lexForm, DEFINITION--AS--PER--DIRECTIVE--EU--2016\_797--OF--11--MAY--2016--ON--THE--INTEROPERABILITY\_lexForm, DEGRADED--OPERATION\_lexForm, DELAY\_lexForm, DELETION--OF--A--MESSAGE\_lexForm, DELTA--DEVIATION\_lexForm, DEPARTURE--DATE\_TIME--ACTUAL\_lexForm, DEPARTURE--DATE\_TIME--ESTIMATED\_lexForm, DEPARTURE--DATE\_TIME--PLANNED\_lexForm, DEPARTURE--DELAY--ACTUAL\_lexForm, DEPARTURE--DELAY--EXPECTED\_lexForm, DERAILMENT--OF--TRAIN\_lexForm, DES--KEY\_lexForm, DESIGN--OPERATING--STATE\_lexForm, DESIGN--PHASE--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexForm, DESIGN--TRACK--GAUGE\_lexForm, DESIGN--VALUE\_lexForm, DESK\_lexForm, DESPATCH--DISPATCH\_lexForm, DESTINATION--ADDRESS\_lexForm, DESTINATION--ADDRESS\_lexForm\_2, DEVELOPMENT--OF--THE--RAILWAY--INFRASTRUCTURE\_lexForm, DIESEL--MULTIPLE--UNIT\_lexForm, DIFFERENCE--VALUE--BETWEEN--THE--PERMITTED--SPEED--TO--E-G---DV\_EBIMINEMERGENCY--BRAKE--INTERVENTION--SPEED--MINIMUM--DV\_EBIMAX--EMERGENCY--BRAKE--INTERVENTION--SPEED--MAXIMUM\_lexForm, DIFFERENCE--VALUE--BETWEEN--THE--PERMITTED--SPEED--TO--E-G---DV\_EBIMINEMERGENCY--BRAKE--INTERVENTION--SPEED--MINIMUM--DV\_EBIMAX--EMERGENCY--BRAKE--INTERVENTION--SPEED--MAXIMUM\_lexForm\_2, DIGITAL--CAPACITY--MANAGEMENT\_lexForm, DIGITAL--CAPACITY--MANAGEMENT\_lexForm\_2, DIRECT--CURRENT\_lexForm, DIRECT--CURRENT\_lexForm\_2, DIRECT--TRAIN\_lexForm, DIRECTION--FLAG\_lexForm, DIRECTION--FLAG\_lexForm\_2, DIRECTIVE--2008\_57\_lexForm, DISCONNECT\_lexForm, DISCONNECT\_lexForm\_2, DISPLAY\_lexForm, DISTANCE--BETWEEN--TRACK--CENTRES\_lexForm, DISTRIBUTION--JOB\_lexForm, DISTRIBUTOR\_lexForm, DIVERSITY\_lexForm, DOMAIN--NAME--SERVER\_lexForm, DOMAIN--NAME--SERVER\_lexForm\_2, DOMESTIC--JOURNEY\_lexForm, DOMESTIC--RAIL--PASSENGER--SERVICE\_lexForm, DRIVER--IDENTITY\_lexForm, DRIVER--MACHINE--INTERFACE\_lexForm, DRIVER--MACHINE--INTERFACE\_lexForm\_2, DRIVER--MACHINE--INTERFACE\_lexForm\_3, DRIVER\_lexForm, DRIVING--COACH\_lexForm, DRIVING--ON--SIGHT\_lexForm, DRIVING--TRAILER\_lexForm, DRIVING--VAN\_lexForm, DUAL--CAB--ENGINE\_lexForm, DUTY--HOLDER\_lexForm, DYNAMIC--LATERAL--FORCE\_lexForm, DYNAMIC--SPEED--PROFILE\_lexForm, EACH--USE--CASE--IS--REPRESENTED--AS--THE--SEQUENCE--OF--EVENTS--THAT--FROM--THE--IDENTIFICA\_lexForm, EARTHWORKS\_lexForm, ELECTRIC--MULTIPLE--UNIT\_lexForm, ELECTRO--CARDIOGRAM\_lexForm, ELECTRO--CARDIOGRAM\_lexForm\_2, ELECTRO-PNEUMATIC\_lexForm, ELECTRO-PNEUMATIC\_lexForm\_2, ELECTROMAGNETIC--COMPATIBILITY\_lexForm, ELECTROMAGNETIC--COMPATIBILITY\_lexForm\_2, ELECTROMAGNETIC--INTERFERENCE\_lexForm, ELECTROMAGNETIC--INTERFERENCE\_lexForm\_2, ELEMENTARY--FILE--SIM--CARD\_lexForm, ELEMENTARY--FILE--SIM--CARD\_lexForm\_2, EMERGENCY--BRAKE--CONFIDENCE--LEVEL\_lexForm, EMERGENCY--BRAKE--CONFIDENCE--LEVEL\_lexForm\_2, EMERGENCY--BRAKE--DECELERATION--CURVE\_lexForm, EMERGENCY--BRAKE--DECELERATION--CURVE\_lexForm\_2, EMERGENCY--BRAKE--INTERVENTION--SUPERVISION--LIMIT\_lexForm, EMERGENCY--BRAKE--INTERVENTION--SUPERVISION--LIMIT\_lexForm\_2, EMERGENCY--BRAKING\_lexForm, EMERGENCY--BRAKING\_lexForm\_2, EMERGENCY--CALL\_lexForm, EMERGENCY--EXIT\_lexForm, EMPLOYEE--OR--CONTRACTOR\_lexForm, EN--LINE--CATEGORY\_lexForm, ENCRYPTION\_lexForm, END--COUPLING\_lexForm, END--OF--AUTHORITY--PASSED--WITHOUT--PERMISSION\_lexForm, END--OF--AUTHORITY\_lexForm, END--OF--LOOP--MARKER\_lexForm, END--OF--MOVEMENT--AUTHORITY\_lexForm, END-OF-LOOP-MARKER\_lexForm, END-OF-LOOP-MARKER\_lexForm\_2, ENERGY\_lexForm, ENERGY\_lexForm\_2, ENGINE--ORIENTATION\_lexForm, ENGINE\_lexForm, ENHANCED--MULTI-LEVEL--PRECEDENCE--AND--PRE-EMPTION\_lexForm, ENHANCED--MULTI-LEVEL--PRECEDENCE--AND--PRE-EMPTION\_lexForm\_2, ENHANCED--ODOMETRY\_lexForm, ENTITY--IN--CHARGE--OF--MAINTENANCE\_lexForm, ENTITY--IN--CHARGE--OF--MAINTENANCE\_lexForm\_2, ENTITY--IN--CHARGE--OF--MAINTENANCE\_lexForm\_3, ENTRANCE--SIGNAL\_lexForm, EQUIPPED--LINE\_lexForm, EQUIVALENT--CONICITY\_lexForm, ERTMS\_ETCS--ON-BOARD--EQUIPMENT\_lexForm, ESSENTIAL--REQUIREMENTS\_lexForm, ESTIMATED--POSITION\_lexForm, ESTIMATED--SPEED\_lexForm, ESTIMATED--TIME--OF--ARRIVAL\_lexForm, ESTIMATED--TIME--OF--ARRIVAL\_lexForm\_2, ETA\_lexForm, ETA\_lexForm\_2, ETCS--ID--TYPE--FIELD--IN--A--SAPDU\_lexForm, ETCS--ID--TYPE--FIELD--IN--A--SAPDU\_lexForm\_2, ETCS--IDENTITY\_lexForm, ETCS--IDENTITY\_lexForm\_2, ETH\_lexForm, ETH\_lexForm\_2, ETI\_lexForm, ETI\_lexForm\_2, ETP\_lexForm, EURO-NORM\_lexForm, EURO-NORM\_lexForm\_2, EUROBALISE\_lexForm, EUROLOOP\_lexForm, EUROPEAN--CAPACITY--MANAGEMENT--TOOL\_lexForm, EUROPEAN--CAPACITY--MANAGEMENT--TOOL\_lexForm\_2, EUROPEAN--COMMISSION\_lexForm\_3, EUROPEAN--COMMISSION\_lexForm\_4, EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION--ELECTROTECHNIQUE\_lexForm, EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION--ELECTROTECHNIQUE\_lexForm\_2, EUROPEAN--COMMITTEE--FOR--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION\_lexForm, EUROPEAN--COMMITTEE--FOR--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION\_lexForm\_2, EUROPEAN--COMMUNITY\_lexForm, EUROPEAN--COMMUNITY\_lexForm\_2, EUROPEAN--ECONOMIC--INTEREST--GROUP\_lexForm, EUROPEAN--ECONOMIC--INTEREST--GROUP\_lexForm\_2, EUROPEAN--INSTRUCTION\_lexForm, EUROPEAN--INTEGRATED--RADIO--ENHANCED--NETWORK\_lexForm, EUROPEAN--INTEGRATED--RADIO--ENHANCED--NETWORK\_lexForm\_2, EUROPEAN--INTEGRATED--RAILWAY--RADIO--ENHANCED--NETWORK\_lexForm, EUROPEAN--INTEGRATED--RAILWAY--RADIO--ENHANCED--NETWORK\_lexForm\_2, EUROPEAN--NORM\_lexForm, EUROPEAN--NORM\_lexForm\_2, EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_3, EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_4, EUROPEAN--RAILWAY--AGENCY\_lexForm, EUROPEAN--RAILWAY--AGENCY\_lexForm\_2, EUROPEAN--RAILWAY--AGENCY\_lexForm\_3, EUROPEAN--REGISTER--OF--AUTHORISED--TYPES--OF--VEHICLES\_lexForm, EUROPEAN--REGISTER--OF--AUTHORISED--TYPES--OF--VEHICLES\_lexForm\_2, EUROPEAN--SPECIFICATION\_lexForm, EUROPEAN--TELECOMMUNICATION--STANDARD\_lexForm, EUROPEAN--TELECOMMUNICATION--STANDARD\_lexForm\_2, EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexForm\_3, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexForm\_4, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexForm\_5, EUROPEAN--UNION--AGENCY--FOR--RAILWAYS--ALSO--REFERRED--TO--AS--AGENCY\_lexForm, EUROPEAN--UNION--AGENCY--FOR--RAILWAYS--ALSO--REFERRED--TO--AS--AGENCY\_lexForm\_2, EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexForm\_3, EUROPEAN--UNION\_lexForm, EUROPEAN--UNION\_lexForm\_2, EUROPEAN--UNION\_lexForm\_3, EUROPEAN--VITAL--COMPUTER\_lexForm, EUROPEAN--VITAL--COMPUTER\_lexForm\_2, EURORADIO\_lexForm, EVACUATION\_lexForm, EXCEPTIONAL--TRANSPORT\_lexForm, EXISTING--RAIL--SYSTEM\_lexForm, EXIT--SIGNAL\_lexForm, EXPECTATION--WINDOW\_lexForm, EXTENDED--MARK-UP--LANGUAGE\_lexForm, EXTENDED--MARK-UP--LANGUAGE\_lexForm\_2, EXTENDED--STRUCTURED--QUERY--LANGUAGE\_lexForm, EXTENDED--STRUCTURED--QUERY--LANGUAGE\_lexForm\_2, EXTENSIVE--DISRUPTIONS--TO--TRAFFIC\_lexForm, EXTENT--OF--OPERATION\_lexForm, EXTERNAL--COUPLING\_lexForm, FAILURE--MODE--AND--EFFECTS--ANALYSIS\_lexForm, FAILURE--MODE--AND--EFFECTS--ANALYSIS\_lexForm\_2, FAILURE--MODE--EFFECT--AND--CRITICALITY--ANALYSIS\_lexForm, FAILURE--MODE--EFFECT--AND--CRITICALITY--ANALYSIS\_lexForm\_2, FARE\_lexForm, FAULT--NEGATION--TIME\_lexForm, FAULT\_lexForm, FILE--TRANSFER--PROTOCOL\_lexForm, FILE--TRANSFER--PROTOCOL\_lexForm\_2, FILLER\_lexForm, FIRE--IN--ROLLING--STOCK\_lexForm, FIRST--AUTHENTICATION--MESSAGE\_lexForm, FIRST--AUTHENTICATION--MESSAGE\_lexForm\_2, FIXED--BLOCK\_lexForm, FIXED--FORMATION\_lexForm, FIXED--NOSE--PROTECTION\_lexForm, FIXED--RAKE--OF--COACHES\_lexForm, FLANGEWAY--DEPTH\_lexForm, FLANGEWAY--WIDTH\_lexForm, FORECAST--POINT\_lexForm, FORECAST--TIME\_lexForm, FOREIGN--RAIL--PASSENGER--SERVICE\_lexForm, FOREIGN--SALE\_lexForm, FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION--FFFIS\_lexForm, FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexForm, FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexForm\_2, FORM-FIT--FUNCTIONAL--SPECIFICATION\_lexForm, FORM-FIT--FUNCTIONAL--SPECIFICATION\_lexForm\_2, FORWARD--MOVEMENT\_lexForm, FOULING--POINT\_lexForm, FRAME--REJECT\_lexForm, FRAME--REJECT\_lexForm\_2, FRAMEWORK--AGREEMENT\_lexForm, FREE--WHEEL--PASSAGE--AT--CHECK--RAIL\_WING--RAIL--ENTRY\_lexForm, FREE--WHEEL--PASSAGE--AT--CROSSING--NOSE\_lexForm, FREE--WHEEL--PASSAGE--IN--SWITCHES\_lexForm, FS--DEPLOYMENT--CONFIGURATION\_lexForm, FS--DEPLOYMENT--CONFIGURATION\_lexForm\_2, FULFILMENT\_lexForm, FULL--SUPERVISION--MODE\_lexForm, FULL--SUPERVISION--MODE\_lexForm\_2, FULL-RATE--TRAFFIC--CHANNEL\_lexForm, FULL-RATE--TRAFFIC--CHANNEL\_lexForm\_2, FUNCTIONAL--INTERFACE--SPECIFICATION\_lexForm\_3, FUNCTIONAL--INTERFACES--SPECIFICATION--FIS\_lexForm, FUNCTIONAL--MODULE\_lexForm, FUNCTIONAL--REQUIREMENT--SPECIFICATION\_lexForm, FUNCTIONAL--REQUIREMENT--SPECIFICATION\_lexForm\_2, FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexForm\_3, FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexForm\_4, FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexForm\_5, GATEWAY\_lexForm, GAUGE\_lexForm, GENERAL--CONDITIONS--OF--CARRIAGE\_lexForm, GENERAL--OPERATION\_lexForm, GENERAL--PACKET--RADIO--SERVICE\_lexForm, GENERAL--PACKET--RADIO--SERVICE\_lexForm\_2, GLOBAL--PRICE--TRAIN\_lexForm, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS------RAIL\_lexForm, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS------RAIL\_lexForm\_2, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexForm, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexForm\_2, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS\_lexForm, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS\_lexForm\_2, GRAPHICAL--USER--INTERFACE\_lexForm, GRAPHICAL--USER--INTERFACE\_lexForm\_2, GROSS--WEIGHT--OF--LOAD\_lexForm, GUIDANCE--CURVE\_lexForm, GUIDANCE--CURVE\_lexForm\_2, HANDLING--POINT\_lexForm, HANDOVER--POINT\_lexForm, HARMONISED--STANDARD\_lexForm, HAULAGE\_lexForm, HBW\_lexForm, HEALTH--AND--SAFETY--CONDITIONS\_lexForm, HEAVY--MAINTENANCE\_lexForm, HEIGHT--OF--CHECK--RAIL\_lexForm, HIGH--LEVEL--DATA--LINK--CONTROL\_lexForm, HIGH--LEVEL--DATA--LINK--CONTROL\_lexForm\_2, HIGH--SPEED--PASSENGER--SERVICES\_lexForm, HIRER\_lexForm, HOME--KMC\_lexForm, HOT--AXLE--BOX\_lexForm, HS--CODE\_lexForm, HYPERTEXT--TRANSFER--PROTOCOL\_lexForm\_3, IDENTIFICATION--AND--AUTHENTICATION\_lexForm, IDENTIFICATION--AND--AUTHENTICATION\_lexForm\_2, IDENTITY\_lexForm\_2, IM--ENTRY--POINT\_lexForm, IM--EXIT--POINT\_lexForm, IMMEDIATE--ACTION--LIMIT\_lexForm, IMMEDIATE--LEVEL--TRANSITION--ORDER\_lexForm, IM\_lexForm, IN--ADVANCE--OF\_lexForm, IN--REAR--OF\_lexForm, IN--SERVICE--VALUE\_lexForm, INDEPENDENCE--TECHNICAL\_lexForm, INDICATION--SUPERVISION--LIMIT\_lexForm, INDICATION--SUPERVISION--LIMIT\_lexForm\_2, INFILL--INFORMATION\_lexForm, INFILL--LOOP\_lexForm, INFORMATION--POINT\_lexForm, INFRASTRUCTURE--CAPACITY\_lexForm, INFRASTRUCTURE--INSPECTION--VEHICLES\_lexForm, INFRASTRUCTURE--MANAGER--IM\_lexForm, INFRASTRUCTURE--MANAGER\_lexForm\_4, INFRASTRUCTURE--MANAGER\_lexForm\_5, INFRASTRUCTURE--MANAGER\_lexForm\_6, INFRASTRUCTURE--MANAGER\_lexForm\_7, INFRASTRUCTURE\_lexForm\_2, INITIAL--ASSESSMENT--FRAMEWORK--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexForm, INNER--COUPLING\_lexForm, INSERTION--OF--A--NEW--MESSAGE\_lexForm, INTEGRATED--RESERVATION--TICKETS\_lexForm, INTEGRATED--RESERVATION--TICKETS\_lexForm\_2, INTEGRATED--SERVICES--DIGITAL--NETWORK\_lexForm, INTEGRATED--SERVICES--DIGITAL--NETWORK\_lexForm\_2, INTERCHANGE--BETWEEN--CARRIERS\_lexForm, INTERCHANGE--POINT\_lexForm, INTERCHANGE\_lexForm, INTERMEDIATE--COUPLING\_lexForm, INTERMEDIATE--POINT\_lexForm, INTERMITTENT--TRANSMISSION\_lexForm, INTERMODAL--LOADING--UNIT\_lexForm, INTERMODAL--SERVICE--INTEGRATOR\_lexForm, INTERMODAL--TERMINAL\_lexForm, INTERMODAL--TRANSPORT\_lexForm, INTERNATIONAL--ELECTRO-TECHNICAL--COMMISSION\_lexForm, INTERNATIONAL--ELECTRO-TECHNICAL--COMMISSION\_lexForm\_2, INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexForm\_3, INTERNATIONAL--FREIGHT--SERVICE\_lexForm, INTERNATIONAL--JOURNEY\_lexForm, INTERNATIONAL--ORGANISATION--FOR--STANDARDISATION\_lexForm, INTERNATIONAL--ORGANISATION--FOR--STANDARDISATION\_lexForm\_2, INTERNATIONAL--PASSENGER--SERVICE\_lexForm, INTERNATIONAL--RAIL--PASSENGER--SERVICE\_lexForm, INTERNATIONAL--SALE\_lexForm, INTERNATIONAL--STANDARDISATION--ORGANISATION\_lexForm, INTERNATIONAL--STANDARDISATION--ORGANISATION\_lexForm\_2, INTERNATIONAL--TELECOMMUNICATION--UNION\_lexForm, INTERNATIONAL--TELECOMMUNICATION--UNION\_lexForm\_2, INTERNATIONAL--UNION--OF--RAILWAYS--UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexForm, INTERNATIONAL--UNION--OF--RAILWAYS--UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexForm\_2, INTERNET--PROTOCOL\_lexForm, INTERNET--PROTOCOL\_lexForm\_2, INTERNET--PROTOCOL\_lexForm\_3, INTEROPERABILITY--CONSTITUENT\_lexForm, INTEROPERABILITY--OPERATIONAL\_lexForm, INTEROPERABILITY--TECHNICAL\_lexForm, INTEROPERABLE--WHEELCHAIR--TRANSPORTABLE--BY--TRAIN\_lexForm, INTERSECTION--POINT--IP\_lexForm, INTERVENTION--LIMIT\_lexForm, INTERVENTION\_lexForm, INVESTIGATION\_lexForm, INVESTIGATOR-IN-CHARGE\_lexForm, ISOLATED--DEFECT\_lexForm, ISOLATION--MODE\_lexForm, ISOLATION--MODE\_lexForm\_2, ISSUER\_lexForm, JOURNEY--PLANNER\_lexForm, JOURNEY--SECTION\_lexForm, JOURNEY\_lexForm, JURIDICAL--DATA\_lexForm, KEEPER\_lexForm, KERNEL\_lexForm, KEY--MANAGEMENT--CENTRE\_lexForm, KEY--MANAGEMENT--CENTRE\_lexForm\_2, KEY--MANAGEMENT--SYSTEM\_lexForm, KEY--MANAGEMENT--SYSTEM\_lexForm\_2, KEY--MANAGEMENT\_lexForm, KEY--MANAGEMENT\_lexForm\_2, KEY--VALIDITY--PERIOD\_lexForm, KEY\_lexForm, KM--DOMAIN\_lexForm, KVB--EBICAB--RSDD\_lexForm, KVB--EBICAB--RSDD\_lexForm\_2, LAST--RELEVANT--BALISE--GROUP\_lexForm, LAST--RELEVANT--BALISE--GROUP\_lexForm\_2, LATERAL--DEVIATION\_lexForm, LEAD--RAILWAY--UNDERTAKING\_lexForm, LEAD--RAILWAY--UNDERTAKING\_lexForm\_2, LEADING--ENGINE\_lexForm, LENGTH--OF--TRAIN\_lexForm, LESS--THAN--CONTAINER--LOADS\_lexForm, LESS--THAN--CONTAINER--LOADS\_lexForm\_2, LEVEL--0--AREA\_lexForm, LEVEL--0\_lexForm, LEVEL--1--AREA\_lexForm, LEVEL--1\_lexForm, LEVEL--2--AREA\_lexForm, LEVEL--2\_lexForm, LEVEL--ACCESS\_lexForm, LEVEL--CROSSING--ACCIDENT\_lexForm, LEVEL--CROSSING--USER\_lexForm, LEVEL--CROSSING\_lexForm, LEVEL--CROSSING\_lexForm\_2, LEVEL--NTC--AREA\_lexForm, LEVEL--NTC\_lexForm, LEVEL--TRANSITION--ANNOUNCEMENT\_lexForm, LEVEL--TRANSITION--BORDER\_lexForm, LEVEL--TRANSITION--INFORMATION\_lexForm, LEVEL--TRANSITION--ORDER\_lexForm, LEVEL\_lexForm, LICENCE\_lexForm, LICENSING--AUTHORITY\_lexForm, LIFECYCLE--COST--SYSTEM\_lexForm, LIFECYCLE--SYSTEM\_lexForm, LIGHT--RAIL\_lexForm, LIMIT--OF--AUTHORITY\_lexForm, LIMIT--OF--AUTHORITY\_lexForm\_2, LIMITED--SUPERVISION--MODE\_lexForm, LIMITED--SUPERVISION--MODE\_lexForm\_2, LINE--KM\_lexForm, LINE--SIDE--ELECTRONIC--UNIT\_lexForm, LINE--SIDE--ELECTRONIC--UNIT\_lexForm\_2, LINE--SIDE--EQUIPMENT\_lexForm, LINE--SPEED\_lexForm, LINE--UNDER--CONSTRUCTION\_lexForm, LINE--UNDER--CONSTRUCTION\_lexForm\_2, LINE\_lexForm, LINK--ACCESS--PROTOCOL--BALANCED\_lexForm, LINK--ACCESS--PROTOCOL--BALANCED\_lexForm\_2, LINKING--DISTANCE\_lexForm, LINKING--INFORMATION\_lexForm, LINKING\_lexForm, LOADER\_lexForm, LOCAL--TIME\_lexForm, LOCATION--ITEM\_lexForm, LOCO--ID\_lexForm, LOCOMOTIVES--AND--PASSENGER--ROLLING--STOCK\_lexForm, LOCOMOTIVES--AND--PASSENGER--ROLLING--STOCK\_lexForm\_2, LOCOMOTIVE\_lexForm, LOGICAL--ARCHITECTUR--CONCEPT\_lexForm, LOOP--MESSAGE--FORMAT\_lexForm, LOOP--TRANSMISSION--MODULE\_lexForm, LOOP--TRANSMISSION--MODULE\_lexForm\_2, LOOP\_lexForm, LOWEST--SUPERVISED--SPEED--WITHIN--THE--MOVEMENT--AUTHORITY\_lexForm, LOWEST--SUPERVISED--SPEED--WITHIN--THE--MOVEMENT--AUTHORITY\_lexForm\_2, LRU\_lexForm, MAIN--SIGNAL\_lexForm, MAINTENANCE--FILE\_lexForm, MAINTENANCE--OF--THE--RAILWAY--INFRASTRUCTURE\_lexForm, MAINTENANCE--PLAN\_lexForm, MAKE--AVAILABLE\_lexForm, MALFUNCTION\_lexForm, MANAGEMENT--BOARD\_lexForm, MANAGEMENT\_lexForm, MANAGEMENT\_lexForm\_2, MANDATORY--FEATURE\_lexForm, MANDATORY--PARAMETER\_lexForm, MANDATORY--PARAMETER\_lexForm\_2, MANDATORY\_lexForm, MANIFEST--ON--LIST\_lexForm, MANUAL--LEVEL--CHANGE\_lexForm, MARKET--PRICE\_lexForm, MAX--SAFE--ANTENNA--POSITION\_lexForm, MAX--SAFE--FRONT--END\_lexForm, MAY\_lexForm, MEAN--CONTACT--FORCE\_lexForm, MEAN--TIME--BETWEEN--FAILURE\_lexForm\_3, MEAN--USEFUL--VOLTAGE--TRAIN\_lexForm, MEAN--USEFUL--VOLTAGE--ZONE\_lexForm, MESSAGE--AUTHENTICATION--CODE--MAC\_lexForm, MESSAGE--AUTHENTICATION--CODE\_lexForm, MESSAGE--AUTHENTICATION--CODE\_lexForm\_2, MESSAGE--TYPE--IDENTIFIER\_lexForm, MESSAGE--TYPE--IDENTIFIER\_lexForm\_2, MESSAGE\_lexForm, MESSAGE\_lexForm\_2, METADATA\_lexForm, MIN--SAFE--ANTENNA--POSITION\_lexForm, MIN--SAFE--FRONT--END\_lexForm, MINIMUM--CONTACT--WIRE--HEIGHT\_lexForm, MINOR--FAILURE\_lexForm, MISSION--ETCS\_lexForm, MISSION\_lexForm, MNID--LIST--IS--A--LIST--OF--MOBILE--NETWORK--IDS\_lexForm, MNID--LIST--IS--A--LIST--OF--MOBILE--NETWORK--IDS\_lexForm\_2, MOBILE--RADIO--FOR--RAILWAY--NETWORKS--IN--EUROPE\_lexForm, MOBILE--RADIO--FOR--RAILWAY--NETWORKS--IN--EUROPE\_lexForm\_2, MOBILE--SUBSYSTEM\_lexForm, MOBILE--TERMINATION\_lexForm, MOBILE--TERMINATION\_lexForm\_2, MODIFICATION--OF--A--MESSAGE\_lexForm, MOST--RELEVANT--DISPLAYED--TARGET\_lexForm, MOST--RELEVANT--DISPLAYED--TARGET\_lexForm\_2, MOST--RESTRICTIVE--SPEED--PROFILE\_lexForm, MOST--RESTRICTIVE--SPEED--PROFILE\_lexForm\_2, MOVEABLE--STEP\_lexForm, MOVEMENT--AUTHORITY\_lexForm, MOVEMENT--AUTHORITY\_lexForm\_2, MULTI-RAIL--TRACK\_lexForm, MULTIPLE--OPERATION\_lexForm, MULTIPLE--UNITS\_lexForm, MUST--NOT\_lexForm, MUST\_lexForm, NATIONAL--ACCREDITATION--BODY\_lexForm, NATIONAL--ADD-ON\_lexForm, NATIONAL--INSTRUCTION\_lexForm, NATIONAL--RULES\_lexForm, NATIONAL--SYSTEM--MODE\_lexForm, NATIONAL--TRAIN--CONTROL--SYSTEM\_lexForm, NATIONAL--TRAIN--CONTROL\_lexForm, NATIONAL--TRAIN--CONTROL\_lexForm\_2, NATIONAL--VALUES\_lexForm, NETWORK--PROTOCOL--DATA--UNIT\_lexForm, NETWORK--PROTOCOL--DATA--UNIT\_lexForm\_2, NETWORK--SERVICE--ACCESS--POINT\_lexForm, NETWORK--SERVICE--ACCESS--POINT\_lexForm\_2, NETWORK--SERVICE--DATA--UNIT\_lexForm, NETWORK--SERVICE--DATA--UNIT\_lexForm\_2, NETWORK--STATEMENT\_lexForm, NETWORK--TERMINATION\_lexForm, NETWORK--TERMINATION\_lexForm\_2, NETWORK\_lexForm, NO--POWER--MODE\_lexForm, NO--POWER--MODE\_lexForm\_2, NOISE\_lexForm, NOISE\_lexForm\_2, NOMINAL--CONTACT--WIRE--HEIGHT\_lexForm, NOMINAL--TRACK--GAUGE\_lexForm, NOMINAL--VOLTAGE\_lexForm, NON--LEADING--MODE\_lexForm, NON--LEADING--MODE\_lexForm\_2, NON-EQUIPPED--LINE\_lexForm, NON-INTEGRATED--RESERVATION--TICKETS\_lexForm, NON-INTEGRATED--RESERVATION--TICKETS\_lexForm\_2, NON-LEADING--MODE\_lexForm, NON-VITAL\_lexForm, NORMAL--SERVICE\_lexForm, NOTIFIED--BODIES\_lexForm, NRT--TRAIN\_lexForm, OAB\_--\_ENTITIES\_ACTORS\_lexForm, OAB\_--\_PROCESS--INVOLVEMENT\_lexForm, OAB\_lexForm, OAIB\_--\_OPERATIONAL--PROCESS\_lexForm, OBSTACLE-FREE--ROUTE\_lexForm, OCB\_--\_INVOLVEMENT\_lexForm, OCB\_--\_STRUCTURE\_lexForm, OCCUPIED\_lexForm, ODOMETER--ACCURACY\_lexForm, ODOMETRY--REFERENCE--LOCATION\_lexForm, OES\_--\_OPERATIONAL--PROCESS\_--\_SCENARIO\_lexForm, OFF-LINE--KMS\_lexForm, OFFER\_lexForm, OFFICIAL--WEBSITE\_lexForm, OMS-----ON-BOARD--MONITORING--SYSTEM\_lexForm, ON--SIGHT--MODE\_lexForm, ON--SIGHT--MODE\_lexForm\_2, ON--TRACK--MACHINES\_lexForm, ON--TRACK--MACHINES\_lexForm\_2, ON-BOARD--CONTROL-COMMAND--AND--SIGNALLING\_lexForm, ON-BOARD--EQUIPMENT\_lexForm, ON-BOARD--LIFT\_lexForm, ON-BOARD--RAMP\_lexForm, ON-BOARD--RECORDING--DEVICE\_lexForm, ON-BOARD--SYSTEMS\_lexForm, ON-BOARD--UNIT\_lexForm, ON-BOARD--UNIT\_lexForm\_2, ON-GROUND--ENERGY--DATA--COLLECTING--SYSTEM--DATA--COLLECTING--SERVICE\_lexForm, ON-GROUND--ENERGY--DATA--COLLECTING--SYSTEM--DATA--COLLECTING--SERVICE\_lexForm\_2, ON-GROUND--ENERGY--DATA--COLLECTING--SYSTEM--DATA--COLLECTING--SERVICE\_lexForm\_3, ON-LINE--KMS\_lexForm, ONE--STOP--SHOP--OSS\_lexForm, ONE--STOP--SHOP\_lexForm, OPD\_--\_OPERATIONAL--PROCESS\_--\_LOGIC\_lexForm, OPEN--ACCESS--MODE\_lexForm, OPEN--SYSTEM--INTERCONNECTION\_lexForm, OPEN--SYSTEM--INTERCONNECTION\_lexForm\_2, OPERATED--SYSTEM--VERSION\_lexForm, OPERATING--LANGUAGE\_lexForm, OPERATION--AND--MAINTENANCE\_lexForm, OPERATION--AND--MAINTENANCE\_lexForm\_2, OPERATION--AND--TRAFFIC--MANAGEMENT\_lexForm, OPERATION--AND--TRAFFIC--MANAGEMENT\_lexForm\_2, OPERATION--OF--THE--RAILWAY--INFRASTRUCTURE\_lexForm, OPERATIONAL--INSTRUCTION\_lexForm, OPERATOR--OF--SERVICE--FACILITY\_lexForm, OPTIONAL--FEATURE\_OPTION\_lexForm, ORGANISATION--FOR--COOPERATION--BETWEEN--RAILWAYS\_lexForm, ORGANISATION--FOR--COOPERATION--BETWEEN--RAILWAYS\_lexForm\_2, OSS\_lexForm, OTHER--ACCIDENT\_lexForm, OTHER--CREW--MEMBERS--PERFORMING--SAFETY-CRITICAL--TASKS\_lexForm, OTHER--PERSON--AT--A--PLATFORM\_lexForm, OTHER--PERSON--NOT--AT--A--PLATFORM\_lexForm, OTHER--REFERENCE--BALISE--GROUP\_lexForm, OTHER--REFERENCE--BALISE--GROUP\_lexForm\_2, OVER-READING--AMOUNT\_lexForm, OVERHEAD--CONTACT--LINE\_lexForm, OVERHEAD--CONTACT--LINE\_lexForm\_2, OVERHEAD--CONTACT--LINE\_lexForm\_3, OVERLAP\_lexForm, OVERLAP\_lexForm\_2, PACKET--DATA--NETWORK\_lexForm, PACKET--DATA--NETWORK\_lexForm\_2, PACKET--DATA--PROTOCOL\_lexForm, PACKET--DATA--PROTOCOL\_lexForm\_2, PACKET--SWITCHED--DATA\_lexForm, PACKET--SWITCHED--DATA\_lexForm\_2, PACKET--SWITCHED\_lexForm, PACKET--SWITCHED\_lexForm\_2, PACKET\_lexForm, PADDING\_lexForm, PANTOGRAPH\_lexForm, PARTIAL--SUPERVISION--MODES\_lexForm, PASSAGE\_lexForm, PASSENGER--AREA\_lexForm, PASSENGER--TRAIN\_lexForm, PASSENGER-KM\_lexForm, PASSENGER\_lexForm, PASSIVE--LEVEL--CROSSING\_lexForm, PASSIVE--PROVISION\_lexForm, PASSIVE--SHUNTING--MODE\_lexForm, PASSIVE--SHUNTING--MODE\_lexForm\_2, PATH--ASSEMBLY\_lexForm, PATH--COORDINATION--SYSTEM\_lexForm, PATH--COORDINATION--SYSTEM\_lexForm\_2, PATH--NUMBER\_lexForm, PATH\_lexForm, PAYMENT\_lexForm, PEER-TO-PEER\_lexForm, PERFORMANCE--MONITORING\_lexForm, PERFORMANCE--PARAMETER\_lexForm, PERMISSIVE--SIGNAL\_lexForm, PERMITTED--BRAKING--DISTANCE--SPEED--RESTRICTION\_lexForm, PERMITTED--BRAKING--DISTANCE--SPEED--RESTRICTION\_lexForm\_2, PERMITTED--SPEED--SUPERVISION--LIMIT\_lexForm, PERMITTED--SPEED--SUPERVISION--LIMIT\_lexForm\_2, PERMITTED--SPEED\_lexForm, PERSON--WITH--DISABILITIES--AND--PERSON--WITH--REDUCED--MOBILITY\_lexForm, PERSON--WITH--DISABILITIES\_lexForm, PERSON--WITH--REDUCED--MOBILITY\_lexForm, PERSON--WITH--REDUCED--MOBILITY\_lexForm\_2, PERSONS--WITH--REDUCED--MOBILITY\_lexForm, PERSONS--WITH--REDUCED--MOBILITY\_lexForm\_2, PHYSICAL--SCENARIO\_lexForm, PIM\_lexForm, PKI\_lexForm, PLACE--OF--DELIVERY\_lexForm, PLACE--OF--DEPARTURE\_lexForm, PLACE--OF--DESTINATION--PLACE--OF--ARRIVAL\_lexForm, PLACING--IN--SERVICE\_lexForm, PLACING--ON--THE--MARKET\_lexForm, PLAIN--LINE\_lexForm, PLANNING--IM\_lexForm, PLATFORM\_lexForm, POINT--RETRACTION\_lexForm, POINT--TO--POINT--PROTOCOL\_lexForm, POINT--TO--POINT--PROTOCOL\_lexForm\_2, POINT\_lexForm, POSSESSION--OF--SIGNALLING--EQUIPMENT\_lexForm, POST--TRIP--MODE\_lexForm, POST--TRIP--MODE\_lexForm\_2, POWER--HEAD\_lexForm, POWER--UNIT\_lexForm, PRE-DEPARTURE--PERIOD\_lexForm, PREDEFINED--FORMATION--S\_lexForm, PRIMARY--DATA\_lexForm, PROCEED--ASPECT\_lexForm, PRODUCTION--PHASE--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexForm, PRODUCT\_lexForm, PROJECT--AT--AN--ADVANCED--STAGE--OF--DEVELOPMENT\_lexForm, PROTECTED--WRONG--SIDE--FAILURE\_lexForm, PROTOCOL--DATA--UNIT\_lexForm, PROTOCOL--DATA--UNIT\_lexForm\_2, PS--MODE\_lexForm, PS--SERVICE--SETUP\_lexForm, PS--STATUS\_lexForm, PUBLIC--KEY--INFRASTRUCTURE--PKI\_lexForm, PUBLIC--KEY--INFRASTRUCTURE\_lexForm, PUBLIC--KEY--INFRASTRUCTURE\_lexForm\_2, PUBLIC--PRIVATE--PARTNERSHIP\_lexForm, PUBLIC--SWITCHED--TELEPHONE--NETWORK\_lexForm, PUBLIC--SWITCHED--TELEPHONE--NETWORK\_lexForm\_2, PUBLISH\_lexForm, PUT--INTO--SERVICE\_lexForm, QUALIFICATION\_lexForm, QUALITY--OF--SERVICE\_lexForm, QUALITY--OF--SERVICE\_lexForm\_2, RADIO--BLOCK--CENTRE\_lexForm\_4, RADIO--COMMUNICATION--SYSTEM\_lexForm, RADIO--HOLE\_lexForm, RADIO--IN-FILL--UNIT\_lexForm, RADIO--IN-FILL--UNIT\_lexForm\_2, RADIO--INFILL--UNIT\_lexForm, RADIO--NETWORK--TYPE--ETCS\_lexForm, RAIL--INCLINATION\_lexForm, RAIL--INTEROPERABILITY--AND--SAFETY--COMMITTEE\_lexForm, RAIL--INTEROPERABILITY--AND--SAFETY--COMMITTEE\_lexForm\_2, RAIL--PAD\_lexForm, RAIL--SYSTEM\_lexForm, RAILCAR\_lexForm, RAILWAY--INFRASTRUCTURE--MANAGER\_lexForm, RAILWAY--INFRASTRUCTURE--MANAGER\_lexForm\_2, RAILWAY--INFRASTRUCTURE--SYSTEM\_lexForm, RAILWAY--INFRASTRUCTURE--SYSTEM\_lexForm\_2, RAILWAY--INFRASTRUCTURE\_lexForm, RAILWAY--OPERATING--COMPANY\_lexForm, RAILWAY--OPERATING--COMPANY\_lexForm\_2, RAILWAY--SYSTEM\_lexForm, RAILWAY--TUNNEL\_lexForm, RAILWAY--UNDERTAKING\_lexForm\_3, RAILWAY--UNDERTAKING\_lexForm\_4, RAILWAY--UNDERTAKING\_lexForm\_5, RAILWAY--UNDERTAKING\_lexForm\_6, RBC--AREA\_lexForm, RBC\_RBC--BORDER\_lexForm, RBC\_RBC--HANDOVER\_lexForm, RBC\_RBC--TRANSITION\_lexForm, REASONABLE--PROFIT\_lexForm, RECOMMENDED\_lexForm, REDUNDANCY\_lexForm, REFERENCE--CONTOUR\_lexForm, REFERENCE--DOCUMENT--DATABASE--HTTPS-\_RDD-ERA-EUROPA-EU\_RDD\_lexForm, REFERENCE--DOCUMENT--DATABASE--HTTPS-\_RDD-ERA-EUROPA-EU\_RDD\_lexForm\_2, REGIONAL--SERVICES\_lexForm, REGISTER--OF--INFRASTRUCTURE\_lexForm, REGISTER--OF--INFRASTRUCTURE\_lexForm\_2, REGULAR--VS---SHORT--TERM--PROCESSES\_lexForm, RELEASE--DATE\_TIME\_lexForm, RELEASE--SPEED--MONITORING\_lexForm, RELEASE--SPEED--MONITORING\_lexForm\_2, RELEASE--SPEED\_lexForm, RELEASE--TIME--FOR--WAGONS\_lexForm, RELIABILITY--AVAILABILITY--MAINTAINABILITY--SAFETY\_lexForm, RELIABILITY--AVAILABILITY--MAINTAINABILITY--SAFETY\_lexForm\_2, RELIABILITY--AVAILABILITY--MAINTAINABILITY--SAFETY\_lexForm\_3, RELIABILITY\_lexForm, RELOCATION\_lexForm, RENEWAL--OF--THE--RAILWAY--INFRASTRUCTURE\_lexForm, RENEWAL\_lexForm, REPETITION\_REPLAY\_lexForm, REPORTING--POINT\_lexForm, REPOSITORY\_lexForm, REQUEST\_lexForm, REQUEST\_lexForm\_2, RESCUE--COUPLING\_lexForm, RESERVATION--SYSTEM\_lexForm, RESERVATION\_lexForm, RESPONSE\_lexForm, RESPONSE\_lexForm\_2, RESPONSIBLE--APPLICANT--RA\_lexForm, RESPONSIBLE--APPLICANT--RA\_lexForm\_2, RESPONSIBLE--APPLICANT\_lexForm, RESPONSIBLE--IM\_lexForm, RESPONSIBLE--IM\_lexForm\_2, RESPONSIBLE--RU--RRU\_lexForm, RESPONSIBLE--RU--RRU\_lexForm\_2, RESPONSIBLE--RU\_lexForm, RETAILER\_lexForm, RETRANSMISSION--TIMEOUT\_lexForm, RETRANSMISSION--TIMEOUT\_lexForm\_2, RETURN--CIRCUIT\_lexForm, REVERSE--CURVE\_lexForm, REVERSE--MOVEMENT\_lexForm, REVERSING--MODE\_lexForm, REVERSING--MODE\_lexForm\_2, REVOCATION--OF--MOVEMENT--AUTHORITY\_lexForm, RIGHT--SIDE--FAILURE\_lexForm, RIV\_lexForm, ROAD\_lexForm, ROLL--AWAY--PROTECTION\_lexForm, ROLL--AWAY--PROTECTION\_lexForm\_2, ROLLING--STOCK\_lexForm, ROLLING--STOCK\_lexForm\_2, ROUTE--RELEASE\_lexForm, ROUTE--SECTION\_lexForm, ROUTE--SUITABILITY--DATA\_lexForm, ROUTE\_lexForm, RUSSIAN--ABBREVIATION--FOR--PRAWILA--POLZOWANIIA--WAGONAMI--W--MEJDUNARODNOM--SOOBQENII--%3D--RULES--FOR--USE--OF--RAILWAY--VEHICLES--IN--INTERNATIONAL--TRAFFIC\_lexForm, RUSSIAN--ABBREVIATION--FOR--PRAWILA--POLZOWANIIA--WAGONAMI--W--MEJDUNARODNOM--SOOBQENII--%3D--RULES--FOR--USE--OF--RAILWAY--VEHICLES--IN--INTERNATIONAL--TRAFFIC\_lexForm\_2, RU\_lexForm, SAFE--AREA\_lexForm, SAFE--CONNECTION--ENDPOINT--IDENTIFIER\_lexForm, SAFE--CONNECTION--ENDPOINT--IDENTIFIER\_lexForm\_2, SAFE--CONSIST--LENGTH--ETCS\_lexForm, SAFE--DECELERATION\_lexForm, SAFE--FUNCTIONAL--MODULE\_lexForm, SAFE--FUNCTIONAL--MODULE\_lexForm\_2, SAFETY--ACCEPTANCE\_lexForm, SAFETY--AUTHORISATION\_lexForm, SAFETY--CERTIFICATE\_lexForm, SAFETY--FEATURES\_lexForm, SAFETY--FEATURES\_lexForm\_2, SAFETY--IN--RAILWAY--TUNNELS\_lexForm, SAFETY--IN--RAILWAY--TUNNELS\_lexForm\_2, SAFETY--INFORMATION\_lexForm, SAFETY--INSTRUCTIONS\_lexForm, SAFETY--INTEGRITY--LEVEL\_lexForm, SAFETY--INTEGRITY--LEVEL\_lexForm\_2, SAFETY--LIFE--CYCLE\_lexForm, SAFETY--MANAGEMENT--SYSTEM\_lexForm, SAFETY--MANAGEMENT--SYSTEM\_lexForm\_2, SAFETY--PROTOCOL--DATA--UNIT\_lexForm, SAFETY--PROTOCOL--DATA--UNIT\_lexForm\_2, SAFETY--SERVICE--ACCESS--POINT\_lexForm, SAFETY--SERVICE--ACCESS--POINT\_lexForm\_2, SAFETY--SERVICE--DATA--UNIT\_lexForm, SAFETY--SERVICE--DATA--UNIT\_lexForm\_2, SAFETY--SERVICE\_lexForm, SAFETY--SERVICE\_lexForm\_2, SAFETY--USER--DATA\_lexForm, SAFETY--USER--DATA\_lexForm\_2, SAFETY-CRITICAL--TASK\_lexForm, SAFETY\_lexForm, SCHEDULED--STOP\_lexForm, SCHEDULED--TIME--OF--DEPARTURE\_lexForm, SCHEDULED--TIMETABLE\_lexForm, SECOND--AUTHENTICATION--MESSAGE\_lexForm, SECOND--AUTHENTICATION--MESSAGE\_lexForm\_2, SECTION--TIMER\_lexForm, SECTIONAL--RUNTIME--CALCULATION\_lexForm, SECTIONING--LOCATIONS\_lexForm, SECTION\_lexForm, SECURITY\_lexForm, SELECTIVE--REJECT\_lexForm, SELECTIVE--REJECT\_lexForm\_2, SELLING\_lexForm, SEMI-CONTINUOUS--TRANSMISSION\_lexForm, SEPARATION--SECTIONS\_lexForm, SERIES\_lexForm, SERIOUS--INJURY--SERIOUSLY--INJURED--PERSON\_lexForm, SERVICE--ACCESS--POINT\_lexForm, SERVICE--ACCESS--POINT\_lexForm\_2, SERVICE--BRAKE--COMMAND--ETCS\_lexForm, SERVICE--BRAKE--DECELERATION--CURVE\_lexForm, SERVICE--BRAKE--DECELERATION--CURVE\_lexForm\_2, SERVICE--BRAKE--OR--IN--THE--CONTEXT--OF--MODES--STAND--BY--MODE\_lexForm, SERVICE--BRAKE--OR--IN--THE--CONTEXT--OF--MODES--STAND--BY--MODE\_lexForm\_2, SERVICE--BRAKING\_lexForm, SERVICE--DISRUPTION\_lexForm, SERVICE--FACILITY\_lexForm, SERVICE--PROVIDER\_lexForm, SERVICE\_lexForm, SESSION--COMMUNICATION\_lexForm, SESSION--KEY--SAME--AS--KSMAC\_lexForm, SESSION--KEY--SAME--AS--KSMAC\_lexForm\_2, SESSION--KEY\_lexForm, SESSION--KEY\_lexForm\_2, SET--ASYNCHRONOUS--BALANCED--MODE--EXTENDED\_lexForm, SET--ASYNCHRONOUS--BALANCED--MODE--EXTENDED\_lexForm\_2, SET--SPEED\_lexForm, SHALL\_lexForm, SHARED--SECURITY--SERVICES\_lexForm, SHIPMENT\_lexForm, SHORT--NOTICE--PATH--REQUEST\_lexForm, SHORT--TERM--PROCESSES\_lexForm, SHOULD--NOT\_lexForm, SHOULD\_lexForm, SHUNTER\_lexForm, SHUNTING--MODE\_lexForm, SHUNTING--MODE\_lexForm\_2, SHUNTING--MOVEMENT\_lexForm, SHUNTING--SIGNAL\_lexForm, SIDING\_lexForm, SIGNAL--LOCATION\_lexForm, SIGNAL--PASSED--AT--DANGER--WHEN--PASSING--A--DANGER--POINT\_lexForm, SIGNAL--PASSED--AT--DANGER--WITHOUT--PASSING--A--DANGER--POINT\_lexForm, SIGNAL--PASSED--AT--DANGER\_lexForm, SIGNAL--PASSED--AT--DANGER\_lexForm\_2, SIGNALLER\_lexForm, SIGNALLING--SYSTEM\_lexForm, SIGNAL\_lexForm, SIGNIFICANT--ACCIDENT\_lexForm, SIGNIFICANT--DAMAGE--TO--STOCK--TRACK--OTHER--INSTALLATIONS--OR--ENVIRONMENT\_lexForm, SINGLE--ON-BOARD--LOCATION--REFERENCE\_lexForm, SINGLE--ON-BOARD--LOCATION--REFERENCE\_lexForm\_2, SLAVE--ENGINE\_lexForm, SLEEPING--MODE\_lexForm, SLEEPING--MODE\_lexForm\_2, SOURCE--ADDRESS\_lexForm, SOURCE--ADDRESS\_lexForm\_2, SPECIFIC--CASE\_lexForm, SPECIFIC--TRANSMISSION--MODULE\_lexForm, SPECIFIC--TRANSMISSION--MODULE\_lexForm\_2, SPEED--CONFIDENCE--INTERVAL\_lexForm, SPOT--TRANSMISSION\_lexForm, STAFF--RESPONSIBLE--MODE\_lexForm, STAFF--RESPONSIBLE--MODE\_lexForm\_2, STAFF\_lexForm, STAKEHOLDERS\_lexForm, STANDBY--MODE\_lexForm, STANDSTILL--ETCS\_lexForm, START--OF--MISSION\_lexForm, START--OF--MISSION\_lexForm\_2, STATIC--CONTACT--FORCE\_lexForm, STATIC--SPEED--PROFILE\_lexForm, STATIC--SPEED--PROFILE\_lexForm\_2, STATION--MANAGER\_lexForm, STATION\_lexForm, STEP-FREE--ROUTE\_lexForm, STOP--ASPECT\_lexForm, STOP--SIGNAL\_lexForm, STOPPING--POINT\_lexForm, STORAGE--SIDING\_lexForm, STRUCTURE--GAUGE\_lexForm, STRUCTURED--QUERY--LANGUAGE\_lexForm, STRUCTURED--QUERY--LANGUAGE\_lexForm\_2, SUB-SYSTEM\_lexForm, SUBSTATIONS\_lexForm, SUBSTITUTE--CARRIER\_lexForm, SUBSTITUTION--IN--THE--FRAMEWORK--OF--MAINTENANCE\_lexForm, SUBSYSTEMS\_lexForm, SUICIDE\_lexForm, SUPERVISED--LOCATION\_lexForm, SUPERVISED--LOCATION\_lexForm\_2, SUPERVISED--MANOEUVRE--MODE\_lexForm, SUPERVISED--MANOEUVRE--MODE\_lexForm\_2, SUPERVISORY--BOARD\_lexForm, SUPPLIER--CERTIFIED--SOFTWARE---IT--IMPLIES--THAT--THE--SUPPLIERS--PROVIDE--SOFTWARE--DEVE\_lexForm, SUPPORTED--SYSTEM--VERSION\_lexForm, SWING--NOSE\_lexForm, SWITCHES--AND--CROSSINGS\_lexForm, SYSTEM--FAILURE--MODE\_lexForm, SYSTEM--FAILURE--MODE\_lexForm\_2, SYSTEM--LIFE-CYCLE\_lexForm, SYSTEM--MISSION--DEPRECATED\_lexForm, SYSTEM--NATIONAL--MODE\_lexForm, SYSTEM--NATIONAL--MODE\_lexForm\_2, SYSTEM--REQUIREMENT--SPECIFICATION\_lexForm, SYSTEM--REQUIREMENT--SPECIFICATION\_lexForm\_2, SYSTEM--REQUIREMENTS--SPECIFICATION\_lexForm\_3, SYSTEM--VERSION\_lexForm, SYSTEMATIC--FAULT\_lexForm, TACTILE--CONTROLS\_lexForm, TACTILE--SIGNS\_lexForm, TANDEM\_lexForm, TARGET--SPEED--MONITORING\_lexForm, TARGET--SPEED--MONITORING\_lexForm\_2, TARGET\_lexForm, TARIFF\_lexForm, TECHNICAL--DOCUMENT\_lexForm, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY--RELATING--TO--TELEMATICS\_lexForm, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY--RELATING--TO--TELEMATICS\_lexForm\_2, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_3, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_4, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_5, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_6, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_7, TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm\_3, TECHNICAL--SPECIFICATION\_lexForm, TELEGRAM\_lexForm, TELEMATIC--APPLICATIONS--FOR--FREIGHT\_lexForm, TELEMATIC--APPLICATIONS--FOR--FREIGHT\_lexForm\_2, TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexForm\_3, TELEMATICS--APPLICATIONS--FOR--PASSENGERS\_lexForm, TELEMATICS--APPLICATIONS--FOR--PASSENGERS\_lexForm\_2, TEMPORARY--CAPACITY--RESTRICTION\_lexForm, TEMPORARY--CAPACITY--RESTRICTION\_lexForm\_2, TEMPORARY--SPEED--RESTRICTION\_lexForm, TEMPORARY--SPEED--RESTRICTION\_lexForm\_2, TERM--STATUS--DESCRIPTION--OPERATING--STATE--DRAFT--THE--OPERATING--STATE--DESCRIBES--THE\_lexForm, TETA\_lexForm, THE--ATO--PART--OF--ERTMS\_lexForm, THE--ATO--PART--OF--ERTMS\_lexForm\_2, THE--ETCS--PART--OF--ERTMS\_lexForm, THE--ETCS--PART--OF--ERTMS\_lexForm\_2, THE--FRMCS--PART--OF--ERTMS\_lexForm, THE--FRMCS--PART--OF--ERTMS\_lexForm\_2, THE--GSM-R--PART--OF--ERTMS\_lexForm, THE--GSM-R--PART--OF--ERTMS\_lexForm\_2, THIRD--AUTHENTICATION--MESSAGE\_lexForm, THIRD--AUTHENTICATION--MESSAGE\_lexForm\_2, THIRD--PARTY\_lexForm, THROUGH--ROUTE\_lexForm, THROUGH--TICKET\_lexForm, TICKET--CONTROLLING--ORGANISATION\_lexForm, TICKET--CONTROLLING--ORGANISATION\_lexForm\_2, TICKET--ON--DEPARTURE\_lexForm, TICKET--ON--DEPARTURE\_lexForm\_2, TICKET--VENDOR\_lexForm, TICKET\_lexForm, TIME--TO--INDICATION\_lexForm, TIME--TO--INDICATION\_lexForm\_2, TIMETABLE\_lexForm, TIMING--POINT\_lexForm, TMS--DAILY--TOPOLOGY\_lexForm, TOPOLOGY--MASTER--DATA--VALIDATION--AND--IMPORT\_lexForm, TOUR--OPERATOR\_lexForm, TRACING\_lexForm, TRACK--BUCKLE--OR--OTHER--TRACK--MISALIGNMENT\_lexForm, TRACK--CONDITION\_lexForm, TRACK--DESCRIPTION\_lexForm, TRACK--DESIGN\_lexForm, TRACK--FREE\_lexForm, TRACK--GAUGE\_lexForm, TRACK--GEOMETRY\_lexForm, TRACK--KM\_lexForm, TRACK--OCCUPIED\_lexForm, TRACK--TWIST\_lexForm, TRACK-TO-TRAIN--TRANSMISSION\_lexForm, TRACKING\_lexForm, TRACKSIDE--CONTROL-COMMAND--AND--SIGNALLING\_lexForm, TRACKSIDE--EQUIPMENT\_lexForm, TRACKSIDE\_lexForm, TRACKSIDE\_lexForm\_2, TRACTION--CUT--OFF\_lexForm, TRACTION--CUT--OFF\_lexForm\_2, TRACTION--UNIT\_lexForm, TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_6, TRAIN--CREW\_lexForm, TRAIN--DATA\_lexForm, TRAIN--DESPATCH\_lexForm, TRAIN--DETECTION\_lexForm, TRAIN--DRIVER\_lexForm, TRAIN--ESTIMATED--TIME--OF--ARRIVAL\_lexForm, TRAIN--ESTIMATED--TIME--OF--ARRIVAL\_lexForm\_2, TRAIN--INTEGRITY\_lexForm, TRAIN--INTERFACE--UNIT\_lexForm, TRAIN--INTERFACE--UNIT\_lexForm\_2, TRAIN--INTERFACE\_lexForm, TRAIN--INTERFACE\_lexForm\_2, TRAIN--LENGTH\_lexForm, TRAIN--LOCALISATION\_lexForm, TRAIN--LOCALISATION\_lexForm\_2, TRAIN--MOVEMENT\_lexForm, TRAIN--ORIENTATION--ETCS\_lexForm, TRAIN--PATH\_lexForm, TRAIN--POSITION--CONFIDENCE--INTERVAL\_lexForm, TRAIN--PREPARATION\_lexForm, TRAIN--PROTECTION--SYSTEM\_lexForm, TRAIN--PROTECTION--SYSTEM\_lexForm\_2, TRAIN--PROTECTION--SYSTEM\_lexForm\_3, TRAIN--RUNNING--INTERRUPTED\_lexForm, TRAIN--TIME--OF--ESTIMATED--ARRIVAL\_lexForm, TRAIN--TRIP\_lexForm, TRAIN-KM\_lexForm, TRAIN-TO-TRACK--TRANSMISSION\_lexForm, TRAINING--CENTRE\_lexForm, TRAINSET\_lexForm, TRAIN\_lexForm, TRAM-TRAIN\_lexForm, TRANS-EUROPEAN--NETWORK\_lexForm, TRANS-EUROPEAN--NETWORK\_lexForm\_2, TRANS-EUROPEAN--RAIL--NETWORK\_lexForm, TRANSHIPMENT\_lexForm, TRANSITION--BUFFER\_lexForm, TRANSITIONS\_lexForm, TRANSIT\_lexForm, TRANSMISSION--CONTROL--PROTOCOL\_INTERNET--PROTOCOL\_lexForm, TRANSMISSION--CONTROL--PROTOCOL\_INTERNET--PROTOCOL\_lexForm\_2, TRANSMISSION--CONTROL--PROTOCOL\_lexForm, TRANSMISSION--CONTROL--PROTOCOL\_lexForm\_2, TRANSMISSION--MODE--TABLE\_lexForm, TRANSPONDER\_lexForm, TRANSPORT--CONNECTION--ENDPOINT--IDENTIFIER\_lexForm, TRANSPORT--CONNECTION--ENDPOINT--IDENTIFIER\_lexForm\_2, TRANSPORT--CONNECTION\_lexForm, TRANSPORT--CONNECTION\_lexForm\_2, TRANSPORT--CONTRACT\_lexForm, TRANSPORT--KEY\_lexForm, TRANSPORT--KEY\_lexForm\_2, TRANSPORT--MODE\_lexForm, TRANSPORT--PROTOCOL--CLASS--2\_lexForm, TRANSPORT--PROTOCOL--CLASS--2\_lexForm\_2, TRANSPORT--PROTOCOL--DATA--UNIT\_lexForm, TRANSPORT--PROTOCOL--DATA--UNIT\_lexForm\_2, TRANSPORT--PROTOCOL\_lexForm, TRANSPORT--PROTOCOL\_lexForm\_2, TRANSPORT--SERVICE--ACCESS--POINT\_lexForm, TRANSPORT--SERVICE--ACCESS--POINT\_lexForm\_2, TRANSPORT--SERVICE--DATA--UNIT\_lexForm, TRANSPORT--SERVICE--DATA--UNIT\_lexForm\_2, TRANSPORT--SERVICE--PROVIDER\_lexForm, TRANSPORT--SERVICE\_lexForm, TRANSPORT--SERVICE\_lexForm\_2, TRESPASSER\_lexForm, TRIP--MODE\_lexForm, TRIP--MODE\_lexForm\_2, TRIP--PLAN\_lexForm, TRIPLE-KEY\_lexForm, TS--%3D--TICKETING--SYSTEM--TO--BE--PROVIDED--BY--CENTRAL--INSTANCE--TO--ALLOW--INFORMATION--O\_lexForm, TWO-PHASE--COMMIT\_lexForm, TWO-PHASE--COMMIT\_lexForm\_2, TYPE--OF--OPERATION\_lexForm, TYPE\_lexForm, UNAUTHORISED--DIRECTION--MOVEMENT--PROTECTION\_lexForm, UNAUTHORISED--DIRECTION--MOVEMENT--PROTECTION\_lexForm\_2, UNAUTHORISED--MOVEMENT\_lexForm, UNCOMMISSIONED--AREA\_lexForm, UNDER-READING--AMOUNT\_lexForm, UNFILLER\_lexForm, UNFITTED--AREA\_lexForm, UNFITTED--MODE\_lexForm, UNFITTED--MODE\_lexForm\_2, UNGUIDED--LENGTH--OF--AN--OBTUSE--CROSSING\_lexForm, UNIFE--ETCS--WORKING--GROUP\_lexForm, UNIFE--ETCS--WORKING--GROUP\_lexForm\_2, UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexForm, UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexForm\_2, UNION--RAIL--SYSTEM\_lexForm, UNIT--CAPACITY--USED\_lexForm, UNIT--LOAD\_lexForm, UNIT--TRAIN\_lexForm, UNIT\_lexForm, UNIVERSAL--TIME--CO-ORDINATED\_lexForm, UNIVERSAL--TIME--CO-ORDINATED\_lexForm\_2, UNLOADER\_lexForm, UNNUMBERED--ACKNOWLEDGE\_lexForm, UNNUMBERED--ACKNOWLEDGE\_lexForm\_2, UNNUMBERED--INFORMATION--HDLC--FRAME\_lexForm, UNNUMBERED--INFORMATION--HDLC--FRAME\_lexForm\_2, UNPROTECTED--WRONG--SIDE--FAILURE\_lexForm, UPGRADE--OF--THE--RAILWAY--INFRASTRUCTURE\_lexForm, UPGRADING\_lexForm, URBAN--AND--SUBURBAN--SERVICES\_lexForm, USABLE--LENGTH--OF--A--PLATFORM\_lexForm, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION---IF--NOT--PROVIDED--A--DEFAULT--VALUE--WILL--BE--USED\_lexForm, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION---IF--NOT--PROVIDED--A--DEFAULT--VALUE--WILL--BE--USED\_lexForm\_2, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION\_lexForm, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION\_lexForm\_2, VALIDATION\_lexForm, VALIDATOR\_lexForm, VAN\_lexForm, VARIABLE\_lexForm, VB\_lexForm, VEHICLE--IN--OPERATION\_lexForm, VEHICLE\_lexForm, VERIFICATION--AND--VALIDATION\_lexForm, VERIFICATION--AND--VALIDATION\_lexForm\_2, VERIFICATION\_lexForm, VERIFIER\_lexForm, VERTICALLY--INTEGRATED--UNDERTAKING\_lexForm, VIABLE--ALTERNATIVE\_lexForm, VIRTUAL--BALISE--COVER\_lexForm, VIRTUAL--BALISE--COVER\_lexForm\_2, VITAL\_lexForm, VM1+----------\_lexForm, VM1+----------\_lexForm\_2, WAGON--KEEPERS\_lexForm, WAGON--KEEPERS\_lexForm\_2, WAGON--LOAD\_lexForm, WAGON\_lexForm, WAGON\_lexForm\_2, WARNING--SUPERVISION--LIMIT\_lexForm, WARNING--SUPERVISION--LIMIT\_lexForm\_2, WARNING\_lexForm, WAYBILL\_lexForm, WHEELSLIDE\_lexForm, WHEELSLIP\_lexForm, WORK--PASSENGER\_lexForm, WORKING--TIMETABLE\_lexForm, WRONG--SIDE--FAILURE\_lexForm, WRONG--SIDE--SIGNALLING--FAILURE\_lexForm

### 37 ontolex:Form MODIFIED from lex\_sp-defs-240306:

ACCIDENT\_lexForm, AUTHENTICATION\_lexForm, CONFIGURATION--MANAGEMENT\_lexForm, CONFIGURATION\_lexForm, CONSTRAINT\_lexForm, CONTROL-COMMAND--AND--SIGNALLING\_lexForm, CROSS-ACCEPTANCE\_lexForm, CUSTOMER\_lexForm, EUROPEAN--COMMISSION\_lexForm\_2, EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexForm, FAIL-SAFE\_lexForm, FAILURE\_lexForm, FAULT--DETECTION--TIME\_lexForm, INCIDENT\_lexForm, INTERLOCKING\_lexForm, INTEROPERABILITY--CONSTITUENTS\_lexForm, INTEROPERABILITY\_lexForm, MAINTAINABILITY\_lexForm, MANUFACTURER\_lexForm, MEAN--TIME--BETWEEN--FAILURE\_lexForm, MODE\_lexForm, MOVING--BLOCK\_lexForm, NATIONAL--SAFETY--AUTHORITY\_lexForm, OPERATIONAL--HAZARD\_lexForm, RADIO--BLOCK--CENTRE\_lexForm, REFERENCE--LOCATION\_lexForm, RISK\_lexForm, ROLL--AWAY\_lexForm, SAFE--STATE\_lexForm, SPECIFICATION--TASK\_lexForm, SYSTEM--ACTOR\_lexForm, SYSTEM\_lexForm, TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm, TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm\_2, TERMINAL--OPERATOR\_lexForm, TRAIN--RUNNING--NUMBER\_lexForm

## ontolex:LexicalSense entities

### 830 ontolex:LexicalSense in lex\_sp-defs-240619:

### 118 ontolex:LexicalSense NEW from lex\_sp-defs-240306:

1D--REFERENCE--FRAME\_lexSense, 3D--REFERENCE--FRAME\_lexSense, 4-2-17-1---ETCS--SYSTEM--COMPATIBILITY\_lexSense, ABSOLUTE--POSITION--REFERENCE--FRAME\_lexSense, ACCURACY\_lexSense, ADD--TRAIN\_lexSense, ANGULAR--RATE\_lexSense, ARCHITECTURE--TRADEOFF--ANALYSIS--METHOD\_lexSense, ARRIVAL--DATETIME--CHANGE\_lexSense, ATO--AUTOMATIC--TRAIN--OPERATION--AOC--AREA--OF--CONTROL--CCS--CONTROL--COMMAND--AND--SIGNAL\_lexSense, ATTITUDE--REFERENCE--FRAME\_lexSense, ATTRIBUTE\_lexSense, AUTHORISED--USER\_lexSense, AUTHORISING--ENTITY-----AUTHORISING--ENTITY--MEANS--THE--ENTITY--THAT--ISSUES--THE--VEHICLE\_lexSense, BASIC--ADVANCED--SAFE--TRAIN--POSITIONING--BASIC--ASTP\_lexSense, BUILDINGBLOCKCONFIGURATION--\_CONFIGURATION-JSON\_--DOCUMENT\_lexSense, CARRIAGE--FRONT--END\_lexSense, CCS-----CONTROL-COMMAND--AND--SIGNALLING\_lexSense, COMMAND--CONTROL--SYSTEM--TSI\_lexSense, COMPLETE--TRAIN--CANCELLATION\_lexSense, COMPLETENESS\_lexSense, CONFIDENCE--INTERVAL\_lexSense, CONFIG--ITEM\_lexSense, CONFIGURATION--MANAGEMENT--SYSTEM\_lexSense, CONNECTION--CHANGE\_lexSense, DELETE-----CCS--CONFIGURATION--MANIFEST\_lexSense, DEPARTURE--DATETIME--CHANGE\_lexSense, DIFFUSE--OPERATIONAL--STATE\_lexSense, DIRECT--TRACK--POSSESSION--\_--OCCUPANCY\_lexSense, DISTRIBUTIONJOB--\_DISTRIBUTION-JOB-JSON\_--DOCUMENT\_lexSense, DRIVING--STRATEGY--CHANGE\_lexSense, DRIVING--STRATEGY\_lexSense, DYNAMIC--BUSINESS--RULES\_lexSense, ELEMENT\_lexSense, END--OCCUPANCY--LOCATION\_lexSense, END--OCCUPANCY--TIME\_lexSense, ESTIMATED--DISTANCE\_lexSense, ESTIMATED--TRAIN--FRONT--END--POSITION\_lexSense, EUROPEAN--TRAFFIC--MANAGEMENT\_lexSense, FFFIS-----FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense, FS--DEPLOYMENT--RULES\_lexSense, FUNCTIONAL--TOPOLOGY\_lexSense, HEADWAY--DISTANCE\_lexSense, HIGH--LEVEL--BUILDINGBLOCKS\_lexSense, IN--THIS--DOCUMENT--THE--ABBREVIATIONS--\_IM\_--FOR--INFRASTRUCTURE--MANAGER\_--AND--\_RU\_--FO\_lexSense, INDIRECT--TRACK--POSSESSION--\_--OCCUPANCY\_lexSense, INDIVISIBLE--FOR--DEPLOYMENT\_lexSense, INTEGRATION-----INTEGRATION--IS--THE--ACTIVITY--TO--COMBINATE--INDIVIDUAL--UNITS--SUBSYST\_lexSense, JURIDICAL--RECORDER---COLLECTING--AND--STORING--JURIDICAL--DATA--E-G---JRU--DATA---SUBSET\_lexSense, KINEMATIC--DATA\_lexSense, LOCALISATION--INFORMATION\_lexSense, LOGGING---IS--THE--ACTIVITY--OF--KEEPING--A--LIST--OF--EVENTS--THAT--OCCUR--IN--A--COMPUTER--SY\_lexSense, LOGICAL--ARCHITECTURE--CONCEPT\_lexSense, MAP--DATA\_lexSense, MAXIMUM--STOPPING--TIME\_lexSense, MAXIMUM--WAITING--TIME\_lexSense, MDS-----MULTI--DISPLAY--SYSTEM--ALTERNATIVE--NAMING--FOR--TRAIN--DISPLAY--SYSTEM--NOT--YET\_lexSense, MINIMUM--CIRCULATION--TIME\_lexSense, MINIMUM--STOPPING--TIME\_lexSense, MONITORING---CONTINUOUS--SUPERVISION--OF--THE--SYSTEM--CONDITION--FOR--DIAGNOSTIC--OR--PRO\_lexSense, MULTIPLE--INDEPENDENT--LEVELS--OF--SECURITY--OR--SAFETY\_lexSense, NATIONAL--TRAFFIC--CONTROL--CENTRE\_lexSense, NATIONAL--TRAFFIC--MANAGEMENT--SYSTEM\_lexSense, OMS-----ONLINE--MONITORING--SYSTEM\_lexSense, OMTS-----ON--BOARD--MULTIMEDIA--AND--TELEMATICS--SYSTEM--X2R4--EQUIVALENT--WITH--PASSENGER\_lexSense, ON-BOARD--MAP--DATA\_lexSense, OPERATIONAL--INTERFACES\_lexSense, OPERATIONAL--TSI\_lexSense, ORCHESTRATION--INTERFACE\_lexSense, PARTIAL--TRAIN--CANCELATION\_lexSense, PASSENGER--INFORMATION--TIME\_lexSense, PAY--LOAD--TYPE\_lexSense, PIS-----PASSENGER--INFORMATION--SYSTEM\_lexSense, PLATFORM--CHANGE--TIME\_lexSense, PLATFORM--CHANGE\_lexSense, PROCEDURE\_lexSense, PROGNOSTICS---IS--THE--ABILITY--TO--PREDICT--AN--IMPEDING--FAILURE--OF--A--SYSTEM--BASED--ON\_lexSense, PROPERTIES--TOPOLOGY\_lexSense, QUALITY--ATTRIBUTE\_lexSense, RAILNETEUROPE--TRAIN--INFORMATION--SYSTEM\_lexSense, RAILWAY--HAZARD\_lexSense, REACTION--TIME\_lexSense, REGIONAL--TRAFFIC--CONTROL--CENTRE\_lexSense, RELATIVE--POSITION\_lexSense, RINF-----RINF--MEANS--REGISTER--OF--INFRASTRUCTURE---THE--RINF--COMPREHENSIVELY--DESCRIBES\_lexSense, ROUTE--CHANGE\_lexSense, SEGMENT--PROFILE\_lexSense, SENSITIVITY--POINTS\_lexSense, SHARED--CYBERSECURITY--SERVICES\_lexSense, SKIP--STOP\_lexSense, SPT1-RAILWAY--SYSTEM-----COMMON--BUSINESS--OBJECTIVES--REV---63268\_lexSense, START--OCCUPANCY--LOCATION\_lexSense, START--OCCUPANCY--TIME\_lexSense, SUPPLIER\_lexSense, SUPPORTING--INFORMATION\_lexSense, SYSTEM--HAZARD\_lexSense, T2OD-----TASK--2---OPERATIONAL--DESIGN--DOMAIN\_lexSense, TECHNICAL--USER\_lexSense, THREAT--LANDSCAPE\_lexSense, TIMESTAMP\_lexSense, TRACK--CHANGE\_lexSense, TRACK--TOPOLOGY\_lexSense, TRADEOFF--POINTS\_lexSense, TRAIN--ACTIVATE\_lexSense, TRAIN--CONSIST--CHANGE\_lexSense, TRAIN--DEACTIVATE\_lexSense, TRAIN--DYNAMIC--DATA\_lexSense, TRAIN--FRONT--END\_lexSense, TRAIN--SEQUENCE--CHANGE\_lexSense, TRAIN--STANDBY\_lexSense, TRAIN--TRUE--ACCELERATION\_lexSense, TRAIN--TRUE--POSITION\_lexSense, TRAIN--TRUE--SPEED\_lexSense, TSI--CCS--2023-----4-1-1---BASIC--PARAMETERS\_lexSense, USER\_lexSense, VALID--LOCALISATION--INFORMATION\_lexSense, VELOCITY\_lexSense, XML--SCHEMA--DEFINITION\_lexSense

### 1015 ontolex:LexicalSense REMOVED from lex\_sp-defs-240306:

%27ESSENTIAL--FUNCTIONS\_--OF--INFRASTRUCTURE--MANAGEMENT\_lexSense, %2A--THE--CI--IS--A--PERMANENT--ESTABLISHED--BODY--OR--ASSOCIATION--TO--BE--FINANCED--THROUGH--A\_lexSense, %2A--THE--TCG--IS--AN--INSTITUTIONALIZED--AND--RECOGNIZED--BODY--IN--THE--SECTOR--WITH--THE--RO\_lexSense, ACCEPTABLE--MEANS--OF--COMPLIANCE\_lexSense, ACCEPTABLE--NATIONAL--MEANS--OF--COMPLIANCE\_lexSense, ACCESS--PARTY\_lexSense, ACCESS--POINT--NAME\_lexSense, ACCESSIBILITY--DATA\_lexSense, ACCIDENT--INVOLVING--THE--TRANSPORT--OF--DANGEROUS--GOODS\_lexSense, ACCIDENT--TO--PERSONS--INVOLVING--ROLLING--STOCK--IN--MOTION\_lexSense, ACCREDITATION\_lexSense, ACKNOWLEDGEMENT--DRIVER\_lexSense, ACKNOWLEDGEMENT\_lexSense, ACTIVE--LEVEL--CROSSING\_lexSense, ACTOR--VARIANT\_lexSense, ACTUAL--POINT--RP\_lexSense, AC\_lexSense, ADAPTATION--AND--REDUNDANCY--MANAGEMENT--LAYER--ENTITY\_lexSense, AGENCY\_lexSense, AIRGAP--LANGUAGE\_lexSense, AIRGAP\_lexSense, ALERT--LIMIT\_lexSense, ALLOCATION--BODY\_lexSense, ALLOCATION\_lexSense, ALTERNATING--CURRENT\_lexSense, ALTERNATIVE--ROUTE\_lexSense, APPLICANT\_lexSense, APPLICATION--LEVEL\_lexSense, AREA--OF--OPERATION\_lexSense, AREA--OF--USE--OF--A--VEHICLE\_lexSense, ARRIVAL--DATE\_TIME--ACTUAL\_lexSense, ARRIVAL--DATE\_TIME--ESTIMATED\_lexSense, ARRIVAL--DATE\_TIME--PLANNED\_lexSense, ARRIVAL--DELAY--ACTUAL\_lexSense, ARRIVAL--DELAY--EXPECTED\_lexSense, AT--THE--DISCRETION--OF\_lexSense, ATO--AUTOMATIC--TRAIN--OPERATION--CCS--CONTROL--COMMAND--AND--SIGNALING--CI\_CD--CONTINUOUS\_lexSense, ATOMICITY--CONSISTENCY--ISOLATION--DURABILITY\_lexSense, ATTEMPTED--SUICIDE\_lexSense, ATTRIBUTING--SYSTEM\_lexSense, ATTRIBUTOR\_lexSense, AUTHENTICATION--KEY--SAME--AS--KMAC\_lexSense, AUTHENTICATION--KEY\_lexSense, AUTHENTICATION--RESPONSE\_lexSense, AUTHORISED--PUBLIC--BODY\_lexSense, AUTHORISED--REPRESENTATIVE\_lexSense, AUTHORISING--TRAIN--MOVEMENTS\_lexSense, AUTOMATIC--DRIVING--MODE\_lexSense, AUTOMATIC--TRAIN--CONTROL\_lexSense, AUTOMATIC--TRAIN--PROTECTION\_lexSense, AXLE--LOAD--SPEED--PROFILE\_lexSense, AXLE--LOAD\_lexSense, BALANCED--ASYNCHRONOUS--CLASS\_lexSense, BALISE--FIXED\_lexSense, BALISE--GROUP--CO-ORDINATE--SYSTEM\_lexSense, BALISE--GROUP--LOCATION--REFERENCE\_lexSense, BALISE--GROUP\_lexSense, BALISE--SWITCHABLE\_lexSense, BALISE--TRANSMISSION--MODULE\_lexSense, BALISE\_lexSense, BASELINE--RELEASE\_lexSense, BASELINE\_lexSense, BASIC--PARAMETER\_lexSense, BINARY--CODED--DECIMAL\_lexSense, BLOCK--TRAIN\_lexSense, BLOCK\_lexSense, BOOKING--SELLING\_lexSense, BOOKING\_lexSense, BRAKE--INTERFACE--UNIT--USED--WITH--REGARDS--TO--STM\_lexSense, BRAKING--CURVE\_lexSense, BRAKING--DISTANCE--EMERGENCY\_lexSense, BRAKING--DISTANCE--SERVICE\_lexSense, BRAKING--SYSTEMS--INDEPENDENT--OF--WHEEL-RAIL--ADHESION--CONDITIONS\_lexSense, BRIDGING--PLATE\_lexSense, BROKEN--AXLE--ON--ROLLING--STOCK--IN--SERVICE\_lexSense, BROKEN--RAIL\_lexSense, BROKEN--WHEEL--ON--ROLLING--STOCK--IN--SERVICE\_lexSense, BUILDING--BLOCK--CONFIGURATION--MANIFEST\_lexSense, BUILT--ACCORDING--TO--EXISTING--DESIGN\_lexSense, CAB--ACTIVE\_lexSense, CAB\_lexSense, CANT--DEFICIENCY\_lexSense, CANT\_lexSense, CAPACITY--PLAN--AND--DECISION--PROCESSING\_lexSense, CAPACITY-ENHANCEMENT--PLAN\_lexSense, CAPELLA--VIEWPOINT\_lexSense, CAR--CARRIER\_lexSense, CARRIER--JOINT\_lexSense, CARRIER--SOLE\_lexSense, CARRIER\_lexSense, CAUSES\_lexSense, CA\_lexSense, CCS-----COMMAND--CONTROL--SIGNALLING\_lexSense, CCS--CONFIGURATION--MANAGEMENT--SYSTEM\_lexSense, CCS--CONFIGURATION--MANIFEST\_lexSense, CCS--CONFIGURATION\_lexSense, CEILING--SPEED--MONITORING\_lexSense, CERTIFICATE\_lexSense, CERTIFICATION--FRAMEWORK--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexSense, CHANNEL\_lexSense, CIRCUIT--SWITCHED--PUBLIC--DATA--NETWORK\_lexSense, CIRCUIT--SWITCHED\_lexSense, CLEAR--A--SIGNAL\_lexSense, CN-CODE\_lexSense, COACH--ID\_lexSense, COACH\_lexSense, COLLISION--OF--TRAIN--WITH--OBSTACLE--WITHIN--THE--CLEARANCE--GAUGE\_lexSense, COLLISION--OF--TRAIN--WITH--RAIL--VEHICLE\_lexSense, COMBINED--ROAD-RAIL--TRANSPORT--COMBINED--TRANSPORT\_lexSense, COMITE--EUROPEEN--DE--NORMALISATION\_lexSense, COMMISSION\_lexSense, COMMON--CROSSING\_lexSense, COMMON--INTERFACE\_lexSense, COMMON--SAFETY--METHODS\_lexSense, COMMON--SAFETY--TARGETS\_lexSense, COMMON-MODE--FAULT\_lexSense, COMMUNICATION--FUNCTIONAL--MODULE\_lexSense, COMMUNITY--OF--EUROPEAN--RAILWAYS\_lexSense, COMPETENCE\_lexSense, COMPETENT--AUTHORITY\_lexSense, COMPILED--ENERGY--BILLING--DATA\_lexSense, CONDITIONAL--LEVEL--TRANSITION--ORDER\_lexSense, CONDITIONS--MAINTENANCE\_lexSense, CONDITIONS--OPERATING\_lexSense, CONDITIONS--SYSTEM\_lexSense, CONFLICTING--MOVEMENTS\_lexSense, CONFORMITY--ASSESSMENT--BODY\_lexSense, CONFORMITY--ASSESSMENT\_lexSense, CONGESTED--INFRASTRUCTURE\_lexSense, CONNECTION--ENDPOINT--IDENTIFIER\_lexSense, CONSIGNEE--GOODS--RECEIVER\_lexSense, CONSIGNEE\_lexSense, CONSIGNMENT--NOTE\_lexSense, CONSIGNMENT--ORDER\_lexSense, CONSIGNMENT\_lexSense, CONSIGNOR--SHIPPER--GOODS--SENDER\_lexSense, CONSIGNOR\_lexSense, CONTACT--FORCE\_lexSense, CONTACT--LENGTH\_lexSense, CONTACT--LINE--SYSTEM\_lexSense, CONTACT--WIRE--UPLIFT\_lexSense, CONTINOUS--DATA--TRANSMISSION\_lexSense, CONTRACTING--ENTITY\_lexSense, CONTRACTUAL--AGREEMENT\_lexSense, CONTROL--CENTRE\_lexSense, CONTROL--CHANNEL\_lexSense, CONVENTION--CONCERNING--INTERNATIONAL--CARRIAGE--BY--RAIL--CONVENTION--RELATIVE--AUX--TRANSPORTS--INTERNATIONAUX--FERROVIAIRES\_lexSense, COOPERATION--MODE\_lexSense, COORDINATION\_lexSense, COST--OF--DAMAGE--TO--ENVIRONMENT\_lexSense, COST--OF--DELAYS--AS--A--CONSEQUENCE--OF--ACCIDENTS\_lexSense, COST--OF--MATERIAL--DAMAGE--TO--ROLLING--STOCK--OR--INFRASTRUCTURE\_lexSense, COTS-PRODUCT\_lexSense, CRITICALITY\_lexSense, CROSS-BORDER--AGREEMENT\_lexSense, CROSSWIND\_lexSense, CS--MODE\_lexSense, CT\_lexSense, CURRENT--COLLECTOR\_lexSense, CURRENT--POSITION\_lexSense, CYCLIC--REDUNDANCY--CODE\_lexSense, DANGER--ASPECT\_lexSense, DANGER--POINT\_lexSense, DANGEROUS--GOODS\_lexSense, DATA--COMMUNICATION--EQUIPMENT\_lexSense, DATA--ENCRYPTION--STANDARD--DES\_lexSense, DATA--ENCRYPTION--STANDARD\_lexSense, DATA--INTEGRITY\_lexSense, DATA--TERMINAL--EQUIPMENT\_lexSense, DATA\_lexSense, DC\_lexSense, DEATH--KILLED--PERSON\_lexSense, DECELERATION--DATA\_lexSense, DECIBELS\_lexSense, DECRYPTION\_lexSense, DEFAULT--VALUE\_lexSense, DEFINITION--AS--PER--DIRECTIVE--EU--2016\_797--OF--11--MAY--2016--ON--THE--INTEROPERABILITY\_lexSense, DEGRADED--OPERATION\_lexSense, DELAY\_lexSense, DELETION--OF--A--MESSAGE\_lexSense, DELTA--DEVIATION\_lexSense, DEPARTURE--DATE\_TIME--ACTUAL\_lexSense, DEPARTURE--DATE\_TIME--ESTIMATED\_lexSense, DEPARTURE--DATE\_TIME--PLANNED\_lexSense, DEPARTURE--DELAY--ACTUAL\_lexSense, DEPARTURE--DELAY--EXPECTED\_lexSense, DERAILMENT--OF--TRAIN\_lexSense, DES--KEY\_lexSense, DESIGN--OPERATING--STATE\_lexSense, DESIGN--PHASE--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexSense, DESIGN--TRACK--GAUGE\_lexSense, DESIGN--VALUE\_lexSense, DESK\_lexSense, DESPATCH--DISPATCH\_lexSense, DESTINATION--ADDRESS\_lexSense, DEVELOPMENT--OF--THE--RAILWAY--INFRASTRUCTURE\_lexSense, DIESEL--MULTIPLE--UNIT\_lexSense, DIFFERENCE--VALUE--BETWEEN--THE--PERMITTED--SPEED--TO--E-G---DV\_EBIMINEMERGENCY--BRAKE--INTERVENTION--SPEED--MINIMUM--DV\_EBIMAX--EMERGENCY--BRAKE--INTERVENTION--SPEED--MAXIMUM\_lexSense, DIGITAL--CAPACITY--MANAGEMENT\_lexSense, DIRECT--CURRENT\_lexSense, DIRECT--TRAIN\_lexSense, DIRECTION--FLAG\_lexSense, DIRECTIVE--2008\_57\_lexSense, DISCONNECT\_lexSense, DISPLAY\_lexSense, DISTANCE--BETWEEN--TRACK--CENTRES\_lexSense, DISTRIBUTION--JOB\_lexSense, DISTRIBUTOR\_lexSense, DIVERSITY\_lexSense, DOMAIN--NAME--SERVER\_lexSense, DOMESTIC--JOURNEY\_lexSense, DOMESTIC--RAIL--PASSENGER--SERVICE\_lexSense, DRIVER--IDENTITY\_lexSense, DRIVER--MACHINE--INTERFACE\_lexSense, DRIVER\_lexSense, DRIVING--COACH\_lexSense, DRIVING--ON--SIGHT\_lexSense, DRIVING--TRAILER\_lexSense, DRIVING--VAN\_lexSense, DUAL--CAB--ENGINE\_lexSense, DUTY--HOLDER\_lexSense, DYNAMIC--LATERAL--FORCE\_lexSense, DYNAMIC--SPEED--PROFILE\_lexSense, EACH--USE--CASE--IS--REPRESENTED--AS--THE--SEQUENCE--OF--EVENTS--THAT--FROM--THE--IDENTIFICA\_lexSense, EARTHWORKS\_lexSense, ELECTRIC--MULTIPLE--UNIT\_lexSense, ELECTRO--CARDIOGRAM\_lexSense, ELECTRO-PNEUMATIC\_lexSense, ELECTROMAGNETIC--COMPATIBILITY\_lexSense, ELECTROMAGNETIC--INTERFERENCE\_lexSense, ELEMENTARY--FILE--SIM--CARD\_lexSense, EMERGENCY--BRAKE--CONFIDENCE--LEVEL\_lexSense, EMERGENCY--BRAKE--DECELERATION--CURVE\_lexSense, EMERGENCY--BRAKE--INTERVENTION--SUPERVISION--LIMIT\_lexSense, EMERGENCY--BRAKING\_lexSense, EMERGENCY--CALL\_lexSense, EMERGENCY--EXIT\_lexSense, EMPLOYEE--OR--CONTRACTOR\_lexSense, EN--LINE--CATEGORY\_lexSense, ENCRYPTION\_lexSense, END--COUPLING\_lexSense, END--OF--AUTHORITY--PASSED--WITHOUT--PERMISSION\_lexSense, END--OF--AUTHORITY\_lexSense, END--OF--LOOP--MARKER\_lexSense, END--OF--MOVEMENT--AUTHORITY\_lexSense, END-OF-LOOP-MARKER\_lexSense, ENERGY\_lexSense, ENGINE--ORIENTATION\_lexSense, ENGINE\_lexSense, ENHANCED--MULTI-LEVEL--PRECEDENCE--AND--PRE-EMPTION\_lexSense, ENHANCED--ODOMETRY\_lexSense, ENTITY--IN--CHARGE--OF--MAINTENANCE\_lexSense, ENTRANCE--SIGNAL\_lexSense, EQUIPPED--LINE\_lexSense, EQUIVALENT--CONICITY\_lexSense, ERTMS\_ETCS--ON-BOARD--EQUIPMENT\_lexSense, ESSENTIAL--REQUIREMENTS\_lexSense, ESTIMATED--POSITION\_lexSense, ESTIMATED--SPEED\_lexSense, ESTIMATED--TIME--OF--ARRIVAL\_lexSense, ETA\_lexSense, ETCS--ID--TYPE--FIELD--IN--A--SAPDU\_lexSense, ETCS--IDENTITY\_lexSense, ETH\_lexSense, ETI\_lexSense, ETP\_lexSense, EURO-NORM\_lexSense, EUROBALISE\_lexSense, EUROLOOP\_lexSense, EUROPEAN--CAPACITY--MANAGEMENT--TOOL\_lexSense, EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION--ELECTROTECHNIQUE\_lexSense, EUROPEAN--COMMITTEE--FOR--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION\_lexSense, EUROPEAN--COMMUNITY\_lexSense, EUROPEAN--ECONOMIC--INTEREST--GROUP\_lexSense, EUROPEAN--INSTRUCTION\_lexSense, EUROPEAN--INTEGRATED--RADIO--ENHANCED--NETWORK\_lexSense, EUROPEAN--INTEGRATED--RAILWAY--RADIO--ENHANCED--NETWORK\_lexSense, EUROPEAN--NORM\_lexSense, EUROPEAN--RAILWAY--AGENCY\_lexSense, EUROPEAN--REGISTER--OF--AUTHORISED--TYPES--OF--VEHICLES\_lexSense, EUROPEAN--SPECIFICATION\_lexSense, EUROPEAN--TELECOMMUNICATION--STANDARD\_lexSense, EUROPEAN--UNION--AGENCY--FOR--RAILWAYS--ALSO--REFERRED--TO--AS--AGENCY\_lexSense, EUROPEAN--UNION\_lexSense, EUROPEAN--VITAL--COMPUTER\_lexSense, EURORADIO\_lexSense, EVACUATION\_lexSense, EXCEPTIONAL--TRANSPORT\_lexSense, EXISTING--RAIL--SYSTEM\_lexSense, EXIT--SIGNAL\_lexSense, EXPECTATION--WINDOW\_lexSense, EXTENDED--MARK-UP--LANGUAGE\_lexSense, EXTENDED--STRUCTURED--QUERY--LANGUAGE\_lexSense, EXTENSIVE--DISRUPTIONS--TO--TRAFFIC\_lexSense, EXTENT--OF--OPERATION\_lexSense, EXTERNAL--COUPLING\_lexSense, FAILURE--MODE--AND--EFFECTS--ANALYSIS\_lexSense, FAILURE--MODE--EFFECT--AND--CRITICALITY--ANALYSIS\_lexSense, FARE\_lexSense, FAULT--NEGATION--TIME\_lexSense, FAULT\_lexSense, FILE--TRANSFER--PROTOCOL\_lexSense, FILLER\_lexSense, FIRE--IN--ROLLING--STOCK\_lexSense, FIRST--AUTHENTICATION--MESSAGE\_lexSense, FIXED--BLOCK\_lexSense, FIXED--FORMATION\_lexSense, FIXED--NOSE--PROTECTION\_lexSense, FIXED--RAKE--OF--COACHES\_lexSense, FLANGEWAY--DEPTH\_lexSense, FLANGEWAY--WIDTH\_lexSense, FORECAST--POINT\_lexSense, FORECAST--TIME\_lexSense, FOREIGN--RAIL--PASSENGER--SERVICE\_lexSense, FOREIGN--SALE\_lexSense, FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION--FFFIS\_lexSense, FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense, FORM-FIT--FUNCTIONAL--SPECIFICATION\_lexSense, FORWARD--MOVEMENT\_lexSense, FOULING--POINT\_lexSense, FRAME--REJECT\_lexSense, FRAMEWORK--AGREEMENT\_lexSense, FREE--WHEEL--PASSAGE--AT--CHECK--RAIL\_WING--RAIL--ENTRY\_lexSense, FREE--WHEEL--PASSAGE--AT--CROSSING--NOSE\_lexSense, FREE--WHEEL--PASSAGE--IN--SWITCHES\_lexSense, FS--DEPLOYMENT--CONFIGURATION\_lexSense, FULFILMENT\_lexSense, FULL--SUPERVISION--MODE\_lexSense, FULL-RATE--TRAFFIC--CHANNEL\_lexSense, FUNCTIONAL--INTERFACES--SPECIFICATION--FIS\_lexSense, FUNCTIONAL--MODULE\_lexSense, FUNCTIONAL--REQUIREMENT--SPECIFICATION\_lexSense, GATEWAY\_lexSense, GAUGE\_lexSense, GENERAL--CONDITIONS--OF--CARRIAGE\_lexSense, GENERAL--OPERATION\_lexSense, GENERAL--PACKET--RADIO--SERVICE\_lexSense, GLOBAL--PRICE--TRAIN\_lexSense, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS------RAIL\_lexSense, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexSense, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS\_lexSense, GRAPHICAL--USER--INTERFACE\_lexSense, GROSS--WEIGHT--OF--LOAD\_lexSense, GUIDANCE--CURVE\_lexSense, HANDLING--POINT\_lexSense, HANDOVER--POINT\_lexSense, HARMONISED--STANDARD\_lexSense, HAULAGE\_lexSense, HBW\_lexSense, HEALTH--AND--SAFETY--CONDITIONS\_lexSense, HEAVY--MAINTENANCE\_lexSense, HEIGHT--OF--CHECK--RAIL\_lexSense, HIGH--LEVEL--DATA--LINK--CONTROL\_lexSense, HIGH--SPEED--PASSENGER--SERVICES\_lexSense, HIRER\_lexSense, HOME--KMC\_lexSense, HOT--AXLE--BOX\_lexSense, HS--CODE\_lexSense, IDENTIFICATION--AND--AUTHENTICATION\_lexSense, IM--ENTRY--POINT\_lexSense, IM--EXIT--POINT\_lexSense, IMMEDIATE--ACTION--LIMIT\_lexSense, IMMEDIATE--LEVEL--TRANSITION--ORDER\_lexSense, IM\_lexSense, IN--ADVANCE--OF\_lexSense, IN--REAR--OF\_lexSense, IN--SERVICE--VALUE\_lexSense, INDEPENDENCE--TECHNICAL\_lexSense, INDICATION--SUPERVISION--LIMIT\_lexSense, INFILL--INFORMATION\_lexSense, INFILL--LOOP\_lexSense, INFORMATION--POINT\_lexSense, INFRASTRUCTURE--CAPACITY\_lexSense, INFRASTRUCTURE--INSPECTION--VEHICLES\_lexSense, INFRASTRUCTURE--MANAGER--IM\_lexSense, INITIAL--ASSESSMENT--FRAMEWORK--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexSense, INNER--COUPLING\_lexSense, INSERTION--OF--A--NEW--MESSAGE\_lexSense, INTEGRATED--RESERVATION--TICKETS\_lexSense, INTEGRATED--SERVICES--DIGITAL--NETWORK\_lexSense, INTERCHANGE--BETWEEN--CARRIERS\_lexSense, INTERCHANGE--POINT\_lexSense, INTERCHANGE\_lexSense, INTERMEDIATE--COUPLING\_lexSense, INTERMEDIATE--POINT\_lexSense, INTERMITTENT--TRANSMISSION\_lexSense, INTERMODAL--LOADING--UNIT\_lexSense, INTERMODAL--SERVICE--INTEGRATOR\_lexSense, INTERMODAL--TERMINAL\_lexSense, INTERMODAL--TRANSPORT\_lexSense, INTERNATIONAL--ELECTRO-TECHNICAL--COMMISSION\_lexSense, INTERNATIONAL--FREIGHT--SERVICE\_lexSense, INTERNATIONAL--JOURNEY\_lexSense, INTERNATIONAL--ORGANISATION--FOR--STANDARDISATION\_lexSense, INTERNATIONAL--PASSENGER--SERVICE\_lexSense, INTERNATIONAL--RAIL--PASSENGER--SERVICE\_lexSense, INTERNATIONAL--SALE\_lexSense, INTERNATIONAL--STANDARDISATION--ORGANISATION\_lexSense, INTERNATIONAL--TELECOMMUNICATION--UNION\_lexSense, INTERNATIONAL--UNION--OF--RAILWAYS--UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexSense, INTERNET--PROTOCOL\_lexSense, INTEROPERABILITY--CONSTITUENT\_lexSense, INTEROPERABILITY--OPERATIONAL\_lexSense, INTEROPERABILITY--TECHNICAL\_lexSense, INTEROPERABLE--WHEELCHAIR--TRANSPORTABLE--BY--TRAIN\_lexSense, INTERSECTION--POINT--IP\_lexSense, INTERVENTION--LIMIT\_lexSense, INTERVENTION\_lexSense, INVESTIGATION\_lexSense, INVESTIGATOR-IN-CHARGE\_lexSense, ISOLATED--DEFECT\_lexSense, ISOLATION--MODE\_lexSense, ISSUER\_lexSense, JOURNEY--PLANNER\_lexSense, JOURNEY--SECTION\_lexSense, JOURNEY\_lexSense, JURIDICAL--DATA\_lexSense, KEEPER\_lexSense, KERNEL\_lexSense, KEY--MANAGEMENT--CENTRE\_lexSense, KEY--MANAGEMENT--SYSTEM\_lexSense, KEY--MANAGEMENT\_lexSense, KEY--VALIDITY--PERIOD\_lexSense, KEY\_lexSense, KM--DOMAIN\_lexSense, KVB--EBICAB--RSDD\_lexSense, LAST--RELEVANT--BALISE--GROUP\_lexSense, LATERAL--DEVIATION\_lexSense, LEAD--RAILWAY--UNDERTAKING\_lexSense, LEADING--ENGINE\_lexSense, LENGTH--OF--TRAIN\_lexSense, LESS--THAN--CONTAINER--LOADS\_lexSense, LEVEL--0--AREA\_lexSense, LEVEL--0\_lexSense, LEVEL--1--AREA\_lexSense, LEVEL--1\_lexSense, LEVEL--2--AREA\_lexSense, LEVEL--2\_lexSense, LEVEL--ACCESS\_lexSense, LEVEL--CROSSING--ACCIDENT\_lexSense, LEVEL--CROSSING--USER\_lexSense, LEVEL--CROSSING\_lexSense, LEVEL--NTC--AREA\_lexSense, LEVEL--NTC\_lexSense, LEVEL--TRANSITION--ANNOUNCEMENT\_lexSense, LEVEL--TRANSITION--BORDER\_lexSense, LEVEL--TRANSITION--INFORMATION\_lexSense, LEVEL--TRANSITION--ORDER\_lexSense, LEVEL\_lexSense, LICENCE\_lexSense, LICENSING--AUTHORITY\_lexSense, LIFECYCLE--COST--SYSTEM\_lexSense, LIFECYCLE--SYSTEM\_lexSense, LIGHT--RAIL\_lexSense, LIMIT--OF--AUTHORITY\_lexSense, LIMITED--SUPERVISION--MODE\_lexSense, LINE--KM\_lexSense, LINE--SIDE--ELECTRONIC--UNIT\_lexSense, LINE--SIDE--EQUIPMENT\_lexSense, LINE--SPEED\_lexSense, LINE--UNDER--CONSTRUCTION\_lexSense, LINE\_lexSense, LINK--ACCESS--PROTOCOL--BALANCED\_lexSense, LINKING--DISTANCE\_lexSense, LINKING--INFORMATION\_lexSense, LINKING\_lexSense, LOADER\_lexSense, LOCAL--TIME\_lexSense, LOCATION--ITEM\_lexSense, LOCO--ID\_lexSense, LOCOMOTIVES--AND--PASSENGER--ROLLING--STOCK\_lexSense, LOCOMOTIVE\_lexSense, LOGICAL--ARCHITECTUR--CONCEPT\_lexSense, LOOP--MESSAGE--FORMAT\_lexSense, LOOP--TRANSMISSION--MODULE\_lexSense, LOOP\_lexSense, LOWEST--SUPERVISED--SPEED--WITHIN--THE--MOVEMENT--AUTHORITY\_lexSense, LRU\_lexSense, MAIN--SIGNAL\_lexSense, MAINTENANCE--FILE\_lexSense, MAINTENANCE--OF--THE--RAILWAY--INFRASTRUCTURE\_lexSense, MAINTENANCE--PLAN\_lexSense, MAKE--AVAILABLE\_lexSense, MALFUNCTION\_lexSense, MANAGEMENT--BOARD\_lexSense, MANAGEMENT\_lexSense, MANDATORY--FEATURE\_lexSense, MANDATORY--PARAMETER\_lexSense, MANDATORY\_lexSense, MANIFEST--ON--LIST\_lexSense, MANUAL--LEVEL--CHANGE\_lexSense, MARKET--PRICE\_lexSense, MAX--SAFE--ANTENNA--POSITION\_lexSense, MAX--SAFE--FRONT--END\_lexSense, MAY\_lexSense, MEAN--CONTACT--FORCE\_lexSense, MEAN--USEFUL--VOLTAGE--TRAIN\_lexSense, MEAN--USEFUL--VOLTAGE--ZONE\_lexSense, MESSAGE--AUTHENTICATION--CODE--MAC\_lexSense, MESSAGE--AUTHENTICATION--CODE\_lexSense, MESSAGE--TYPE--IDENTIFIER\_lexSense, MESSAGE\_lexSense, METADATA\_lexSense, MIN--SAFE--ANTENNA--POSITION\_lexSense, MIN--SAFE--FRONT--END\_lexSense, MINIMUM--CONTACT--WIRE--HEIGHT\_lexSense, MINOR--FAILURE\_lexSense, MISSION--ETCS\_lexSense, MISSION\_lexSense, MNID--LIST--IS--A--LIST--OF--MOBILE--NETWORK--IDS\_lexSense, MOBILE--RADIO--FOR--RAILWAY--NETWORKS--IN--EUROPE\_lexSense, MOBILE--SUBSYSTEM\_lexSense, MOBILE--TERMINATION\_lexSense, MODIFICATION--OF--A--MESSAGE\_lexSense, MOST--RELEVANT--DISPLAYED--TARGET\_lexSense, MOST--RESTRICTIVE--SPEED--PROFILE\_lexSense, MOVEABLE--STEP\_lexSense, MOVEMENT--AUTHORITY\_lexSense, MULTI-RAIL--TRACK\_lexSense, MULTIPLE--OPERATION\_lexSense, MULTIPLE--UNITS\_lexSense, MUST--NOT\_lexSense, MUST\_lexSense, NATIONAL--ACCREDITATION--BODY\_lexSense, NATIONAL--ADD-ON\_lexSense, NATIONAL--INSTRUCTION\_lexSense, NATIONAL--RULES\_lexSense, NATIONAL--SYSTEM--MODE\_lexSense, NATIONAL--TRAIN--CONTROL--SYSTEM\_lexSense, NATIONAL--TRAIN--CONTROL\_lexSense, NATIONAL--VALUES\_lexSense, NETWORK--PROTOCOL--DATA--UNIT\_lexSense, NETWORK--SERVICE--ACCESS--POINT\_lexSense, NETWORK--SERVICE--DATA--UNIT\_lexSense, NETWORK--STATEMENT\_lexSense, NETWORK--TERMINATION\_lexSense, NETWORK\_lexSense, NO--POWER--MODE\_lexSense, NOISE\_lexSense, NOMINAL--CONTACT--WIRE--HEIGHT\_lexSense, NOMINAL--TRACK--GAUGE\_lexSense, NOMINAL--VOLTAGE\_lexSense, NON--LEADING--MODE\_lexSense, NON-EQUIPPED--LINE\_lexSense, NON-INTEGRATED--RESERVATION--TICKETS\_lexSense, NON-LEADING--MODE\_lexSense, NON-VITAL\_lexSense, NORMAL--SERVICE\_lexSense, NOTIFIED--BODIES\_lexSense, NRT--TRAIN\_lexSense, OAB\_--\_ENTITIES\_ACTORS\_lexSense, OAB\_--\_PROCESS--INVOLVEMENT\_lexSense, OAB\_lexSense, OAIB\_--\_OPERATIONAL--PROCESS\_lexSense, OBSTACLE-FREE--ROUTE\_lexSense, OCB\_--\_INVOLVEMENT\_lexSense, OCB\_--\_STRUCTURE\_lexSense, OCCUPIED\_lexSense, ODOMETER--ACCURACY\_lexSense, ODOMETRY--REFERENCE--LOCATION\_lexSense, OES\_--\_OPERATIONAL--PROCESS\_--\_SCENARIO\_lexSense, OFF-LINE--KMS\_lexSense, OFFER\_lexSense, OFFICIAL--WEBSITE\_lexSense, OMS-----ON-BOARD--MONITORING--SYSTEM\_lexSense, ON--SIGHT--MODE\_lexSense, ON--TRACK--MACHINES\_lexSense, ON-BOARD--CONTROL-COMMAND--AND--SIGNALLING\_lexSense, ON-BOARD--EQUIPMENT\_lexSense, ON-BOARD--LIFT\_lexSense, ON-BOARD--RAMP\_lexSense, ON-BOARD--RECORDING--DEVICE\_lexSense, ON-BOARD--SYSTEMS\_lexSense, ON-BOARD--UNIT\_lexSense, ON-GROUND--ENERGY--DATA--COLLECTING--SYSTEM--DATA--COLLECTING--SERVICE\_lexSense, ON-LINE--KMS\_lexSense, ONE--STOP--SHOP--OSS\_lexSense, ONE--STOP--SHOP\_lexSense, OPD\_--\_OPERATIONAL--PROCESS\_--\_LOGIC\_lexSense, OPEN--ACCESS--MODE\_lexSense, OPEN--SYSTEM--INTERCONNECTION\_lexSense, OPERATED--SYSTEM--VERSION\_lexSense, OPERATING--LANGUAGE\_lexSense, OPERATION--AND--MAINTENANCE\_lexSense, OPERATION--AND--TRAFFIC--MANAGEMENT\_lexSense, OPERATION--OF--THE--RAILWAY--INFRASTRUCTURE\_lexSense, OPERATIONAL--INSTRUCTION\_lexSense, OPERATOR--OF--SERVICE--FACILITY\_lexSense, OPTIONAL--FEATURE\_OPTION\_lexSense, ORGANISATION--FOR--COOPERATION--BETWEEN--RAILWAYS\_lexSense, OSS\_lexSense, OTHER--ACCIDENT\_lexSense, OTHER--CREW--MEMBERS--PERFORMING--SAFETY-CRITICAL--TASKS\_lexSense, OTHER--PERSON--AT--A--PLATFORM\_lexSense, OTHER--PERSON--NOT--AT--A--PLATFORM\_lexSense, OTHER--REFERENCE--BALISE--GROUP\_lexSense, OVER-READING--AMOUNT\_lexSense, OVERHEAD--CONTACT--LINE\_lexSense, OVERLAP\_lexSense, PACKET--DATA--NETWORK\_lexSense, PACKET--DATA--PROTOCOL\_lexSense, PACKET--SWITCHED--DATA\_lexSense, PACKET--SWITCHED\_lexSense, PACKET\_lexSense, PADDING\_lexSense, PANTOGRAPH\_lexSense, PARTIAL--SUPERVISION--MODES\_lexSense, PASSAGE\_lexSense, PASSENGER--AREA\_lexSense, PASSENGER--TRAIN\_lexSense, PASSENGER-KM\_lexSense, PASSENGER\_lexSense, PASSIVE--LEVEL--CROSSING\_lexSense, PASSIVE--PROVISION\_lexSense, PASSIVE--SHUNTING--MODE\_lexSense, PATH--ASSEMBLY\_lexSense, PATH--COORDINATION--SYSTEM\_lexSense, PATH--NUMBER\_lexSense, PATH\_lexSense, PAYMENT\_lexSense, PEER-TO-PEER\_lexSense, PERFORMANCE--MONITORING\_lexSense, PERFORMANCE--PARAMETER\_lexSense, PERMISSIVE--SIGNAL\_lexSense, PERMITTED--BRAKING--DISTANCE--SPEED--RESTRICTION\_lexSense, PERMITTED--SPEED--SUPERVISION--LIMIT\_lexSense, PERMITTED--SPEED\_lexSense, PERSON--WITH--DISABILITIES--AND--PERSON--WITH--REDUCED--MOBILITY\_lexSense, PERSON--WITH--DISABILITIES\_lexSense, PERSON--WITH--REDUCED--MOBILITY\_lexSense, PERSONS--WITH--REDUCED--MOBILITY\_lexSense, PHYSICAL--SCENARIO\_lexSense, PIM\_lexSense, PKI\_lexSense, PLACE--OF--DELIVERY\_lexSense, PLACE--OF--DEPARTURE\_lexSense, PLACE--OF--DESTINATION--PLACE--OF--ARRIVAL\_lexSense, PLACING--IN--SERVICE\_lexSense, PLACING--ON--THE--MARKET\_lexSense, PLAIN--LINE\_lexSense, PLANNING--IM\_lexSense, PLATFORM\_lexSense, POINT--RETRACTION\_lexSense, POINT--TO--POINT--PROTOCOL\_lexSense, POINT\_lexSense, POSSESSION--OF--SIGNALLING--EQUIPMENT\_lexSense, POST--TRIP--MODE\_lexSense, POWER--HEAD\_lexSense, POWER--UNIT\_lexSense, PRE-DEPARTURE--PERIOD\_lexSense, PREDEFINED--FORMATION--S\_lexSense, PRIMARY--DATA\_lexSense, PROCEED--ASPECT\_lexSense, PRODUCTION--PHASE--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexSense, PRODUCT\_lexSense, PROJECT--AT--AN--ADVANCED--STAGE--OF--DEVELOPMENT\_lexSense, PROTECTED--WRONG--SIDE--FAILURE\_lexSense, PROTOCOL--DATA--UNIT\_lexSense, PS--MODE\_lexSense, PS--SERVICE--SETUP\_lexSense, PS--STATUS\_lexSense, PUBLIC--KEY--INFRASTRUCTURE--PKI\_lexSense, PUBLIC--KEY--INFRASTRUCTURE\_lexSense, PUBLIC--PRIVATE--PARTNERSHIP\_lexSense, PUBLIC--SWITCHED--TELEPHONE--NETWORK\_lexSense, PUBLISH\_lexSense, PUT--INTO--SERVICE\_lexSense, QUALIFICATION\_lexSense, QUALITY--OF--SERVICE\_lexSense, RADIO--COMMUNICATION--SYSTEM\_lexSense, RADIO--HOLE\_lexSense, RADIO--IN-FILL--UNIT\_lexSense, RADIO--INFILL--UNIT\_lexSense, RADIO--NETWORK--TYPE--ETCS\_lexSense, RAIL--INCLINATION\_lexSense, RAIL--INTEROPERABILITY--AND--SAFETY--COMMITTEE\_lexSense, RAIL--PAD\_lexSense, RAIL--SYSTEM\_lexSense, RAILCAR\_lexSense, RAILWAY--INFRASTRUCTURE--MANAGER\_lexSense, RAILWAY--INFRASTRUCTURE--SYSTEM\_lexSense, RAILWAY--INFRASTRUCTURE\_lexSense, RAILWAY--OPERATING--COMPANY\_lexSense, RAILWAY--SYSTEM\_lexSense, RAILWAY--TUNNEL\_lexSense, RBC--AREA\_lexSense, RBC\_RBC--BORDER\_lexSense, RBC\_RBC--HANDOVER\_lexSense, RBC\_RBC--TRANSITION\_lexSense, REASONABLE--PROFIT\_lexSense, RECOMMENDED\_lexSense, REDUNDANCY\_lexSense, REFERENCE--CONTOUR\_lexSense, REFERENCE--DOCUMENT--DATABASE--HTTPS-\_RDD-ERA-EUROPA-EU\_RDD\_lexSense, REGIONAL--SERVICES\_lexSense, REGISTER--OF--INFRASTRUCTURE\_lexSense, REGULAR--VS---SHORT--TERM--PROCESSES\_lexSense, RELEASE--DATE\_TIME\_lexSense, RELEASE--SPEED--MONITORING\_lexSense, RELEASE--SPEED\_lexSense, RELEASE--TIME--FOR--WAGONS\_lexSense, RELIABILITY--AVAILABILITY--MAINTAINABILITY--SAFETY\_lexSense, RELIABILITY\_lexSense, RELOCATION\_lexSense, RENEWAL--OF--THE--RAILWAY--INFRASTRUCTURE\_lexSense, RENEWAL\_lexSense, REPETITION\_REPLAY\_lexSense, REPORTING--POINT\_lexSense, REPOSITORY\_lexSense, REQUEST\_lexSense, RESCUE--COUPLING\_lexSense, RESERVATION--SYSTEM\_lexSense, RESERVATION\_lexSense, RESPONSE\_lexSense, RESPONSIBLE--APPLICANT--RA\_lexSense, RESPONSIBLE--APPLICANT\_lexSense, RESPONSIBLE--IM\_lexSense, RESPONSIBLE--RU--RRU\_lexSense, RESPONSIBLE--RU\_lexSense, RETAILER\_lexSense, RETRANSMISSION--TIMEOUT\_lexSense, RETURN--CIRCUIT\_lexSense, REVERSE--CURVE\_lexSense, REVERSE--MOVEMENT\_lexSense, REVERSING--MODE\_lexSense, REVOCATION--OF--MOVEMENT--AUTHORITY\_lexSense, RIGHT--SIDE--FAILURE\_lexSense, RIV\_lexSense, ROAD\_lexSense, ROLL--AWAY--PROTECTION\_lexSense, ROLLING--STOCK\_lexSense, ROUTE--RELEASE\_lexSense, ROUTE--SECTION\_lexSense, ROUTE--SUITABILITY--DATA\_lexSense, ROUTE\_lexSense, RUSSIAN--ABBREVIATION--FOR--PRAWILA--POLZOWANIIA--WAGONAMI--W--MEJDUNARODNOM--SOOBQENII--%3D--RULES--FOR--USE--OF--RAILWAY--VEHICLES--IN--INTERNATIONAL--TRAFFIC\_lexSense, RU\_lexSense, SAFE--AREA\_lexSense, SAFE--CONNECTION--ENDPOINT--IDENTIFIER\_lexSense, SAFE--CONSIST--LENGTH--ETCS\_lexSense, SAFE--DECELERATION\_lexSense, SAFE--FUNCTIONAL--MODULE\_lexSense, SAFETY--ACCEPTANCE\_lexSense, SAFETY--AUTHORISATION\_lexSense, SAFETY--CERTIFICATE\_lexSense, SAFETY--FEATURES\_lexSense, SAFETY--IN--RAILWAY--TUNNELS\_lexSense, SAFETY--INFORMATION\_lexSense, SAFETY--INSTRUCTIONS\_lexSense, SAFETY--INTEGRITY--LEVEL\_lexSense, SAFETY--LIFE--CYCLE\_lexSense, SAFETY--MANAGEMENT--SYSTEM\_lexSense, SAFETY--PROTOCOL--DATA--UNIT\_lexSense, SAFETY--SERVICE--ACCESS--POINT\_lexSense, SAFETY--SERVICE--DATA--UNIT\_lexSense, SAFETY--SERVICE\_lexSense, SAFETY--USER--DATA\_lexSense, SAFETY-CRITICAL--TASK\_lexSense, SAFETY\_lexSense, SCHEDULED--STOP\_lexSense, SCHEDULED--TIME--OF--DEPARTURE\_lexSense, SCHEDULED--TIMETABLE\_lexSense, SECOND--AUTHENTICATION--MESSAGE\_lexSense, SECTION--TIMER\_lexSense, SECTIONAL--RUNTIME--CALCULATION\_lexSense, SECTIONING--LOCATIONS\_lexSense, SECTION\_lexSense, SECURITY\_lexSense, SELECTIVE--REJECT\_lexSense, SELLING\_lexSense, SEMI-CONTINUOUS--TRANSMISSION\_lexSense, SEPARATION--SECTIONS\_lexSense, SERIES\_lexSense, SERIOUS--INJURY--SERIOUSLY--INJURED--PERSON\_lexSense, SERVICE--ACCESS--POINT\_lexSense, SERVICE--BRAKE--COMMAND--ETCS\_lexSense, SERVICE--BRAKE--DECELERATION--CURVE\_lexSense, SERVICE--BRAKE--OR--IN--THE--CONTEXT--OF--MODES--STAND--BY--MODE\_lexSense, SERVICE--BRAKING\_lexSense, SERVICE--DISRUPTION\_lexSense, SERVICE--FACILITY\_lexSense, SERVICE--PROVIDER\_lexSense, SERVICE\_lexSense, SESSION--COMMUNICATION\_lexSense, SESSION--KEY--SAME--AS--KSMAC\_lexSense, SESSION--KEY\_lexSense, SET--ASYNCHRONOUS--BALANCED--MODE--EXTENDED\_lexSense, SET--SPEED\_lexSense, SHALL\_lexSense, SHARED--SECURITY--SERVICES\_lexSense, SHIPMENT\_lexSense, SHORT--NOTICE--PATH--REQUEST\_lexSense, SHORT--TERM--PROCESSES\_lexSense, SHOULD--NOT\_lexSense, SHOULD\_lexSense, SHUNTER\_lexSense, SHUNTING--MODE\_lexSense, SHUNTING--MOVEMENT\_lexSense, SHUNTING--SIGNAL\_lexSense, SIDING\_lexSense, SIGNAL--LOCATION\_lexSense, SIGNAL--PASSED--AT--DANGER--WHEN--PASSING--A--DANGER--POINT\_lexSense, SIGNAL--PASSED--AT--DANGER--WITHOUT--PASSING--A--DANGER--POINT\_lexSense, SIGNAL--PASSED--AT--DANGER\_lexSense, SIGNALLER\_lexSense, SIGNALLING--SYSTEM\_lexSense, SIGNAL\_lexSense, SIGNIFICANT--ACCIDENT\_lexSense, SIGNIFICANT--DAMAGE--TO--STOCK--TRACK--OTHER--INSTALLATIONS--OR--ENVIRONMENT\_lexSense, SINGLE--ON-BOARD--LOCATION--REFERENCE\_lexSense, SLAVE--ENGINE\_lexSense, SLEEPING--MODE\_lexSense, SOURCE--ADDRESS\_lexSense, SPECIFIC--CASE\_lexSense, SPECIFIC--TRANSMISSION--MODULE\_lexSense, SPEED--CONFIDENCE--INTERVAL\_lexSense, SPOT--TRANSMISSION\_lexSense, STAFF--RESPONSIBLE--MODE\_lexSense, STAFF\_lexSense, STAKEHOLDERS\_lexSense, STANDBY--MODE\_lexSense, STANDSTILL--ETCS\_lexSense, START--OF--MISSION\_lexSense, STATIC--CONTACT--FORCE\_lexSense, STATIC--SPEED--PROFILE\_lexSense, STATION--MANAGER\_lexSense, STATION\_lexSense, STEP-FREE--ROUTE\_lexSense, STOP--ASPECT\_lexSense, STOP--SIGNAL\_lexSense, STOPPING--POINT\_lexSense, STORAGE--SIDING\_lexSense, STRUCTURE--GAUGE\_lexSense, STRUCTURED--QUERY--LANGUAGE\_lexSense, SUB-SYSTEM\_lexSense, SUBSTATIONS\_lexSense, SUBSTITUTE--CARRIER\_lexSense, SUBSTITUTION--IN--THE--FRAMEWORK--OF--MAINTENANCE\_lexSense, SUBSYSTEMS\_lexSense, SUICIDE\_lexSense, SUPERVISED--LOCATION\_lexSense, SUPERVISED--MANOEUVRE--MODE\_lexSense, SUPERVISORY--BOARD\_lexSense, SUPPLIER--CERTIFIED--SOFTWARE---IT--IMPLIES--THAT--THE--SUPPLIERS--PROVIDE--SOFTWARE--DEVE\_lexSense, SUPPORTED--SYSTEM--VERSION\_lexSense, SWING--NOSE\_lexSense, SWITCHES--AND--CROSSINGS\_lexSense, SYSTEM--FAILURE--MODE\_lexSense, SYSTEM--LIFE-CYCLE\_lexSense, SYSTEM--MISSION--DEPRECATED\_lexSense, SYSTEM--NATIONAL--MODE\_lexSense, SYSTEM--REQUIREMENT--SPECIFICATION\_lexSense, SYSTEM--VERSION\_lexSense, SYSTEMATIC--FAULT\_lexSense, TACTILE--CONTROLS\_lexSense, TACTILE--SIGNS\_lexSense, TANDEM\_lexSense, TARGET--SPEED--MONITORING\_lexSense, TARGET\_lexSense, TARIFF\_lexSense, TECHNICAL--DOCUMENT\_lexSense, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY--RELATING--TO--TELEMATICS\_lexSense, TECHNICAL--SPECIFICATION\_lexSense, TELEGRAM\_lexSense, TELEMATIC--APPLICATIONS--FOR--FREIGHT\_lexSense, TELEMATICS--APPLICATIONS--FOR--PASSENGERS\_lexSense, TEMPORARY--CAPACITY--RESTRICTION\_lexSense, TEMPORARY--SPEED--RESTRICTION\_lexSense, TERM--STATUS--DESCRIPTION--OPERATING--STATE--DRAFT--THE--OPERATING--STATE--DESCRIBES--THE\_lexSense, TETA\_lexSense, THE--ATO--PART--OF--ERTMS\_lexSense, THE--ETCS--PART--OF--ERTMS\_lexSense, THE--FRMCS--PART--OF--ERTMS\_lexSense, THE--GSM-R--PART--OF--ERTMS\_lexSense, THIRD--AUTHENTICATION--MESSAGE\_lexSense, THIRD--PARTY\_lexSense, THROUGH--ROUTE\_lexSense, THROUGH--TICKET\_lexSense, TICKET--CONTROLLING--ORGANISATION\_lexSense, TICKET--ON--DEPARTURE\_lexSense, TICKET--VENDOR\_lexSense, TICKET\_lexSense, TIME--TO--INDICATION\_lexSense, TIMETABLE\_lexSense, TIMING--POINT\_lexSense, TMS--DAILY--TOPOLOGY\_lexSense, TOPOLOGY--MASTER--DATA--VALIDATION--AND--IMPORT\_lexSense, TOUR--OPERATOR\_lexSense, TRACING\_lexSense, TRACK--BUCKLE--OR--OTHER--TRACK--MISALIGNMENT\_lexSense, TRACK--CONDITION\_lexSense, TRACK--DESCRIPTION\_lexSense, TRACK--DESIGN\_lexSense, TRACK--FREE\_lexSense, TRACK--GAUGE\_lexSense, TRACK--GEOMETRY\_lexSense, TRACK--KM\_lexSense, TRACK--OCCUPIED\_lexSense, TRACK--TWIST\_lexSense, TRACK-TO-TRAIN--TRANSMISSION\_lexSense, TRACKING\_lexSense, TRACKSIDE--CONTROL-COMMAND--AND--SIGNALLING\_lexSense, TRACKSIDE--EQUIPMENT\_lexSense, TRACKSIDE\_lexSense, TRACTION--CUT--OFF\_lexSense, TRACTION--UNIT\_lexSense, TRAIN--CREW\_lexSense, TRAIN--DATA\_lexSense, TRAIN--DESPATCH\_lexSense, TRAIN--DETECTION\_lexSense, TRAIN--DRIVER\_lexSense, TRAIN--ESTIMATED--TIME--OF--ARRIVAL\_lexSense, TRAIN--INTEGRITY\_lexSense, TRAIN--INTERFACE--UNIT\_lexSense, TRAIN--INTERFACE\_lexSense, TRAIN--LENGTH\_lexSense, TRAIN--LOCALISATION\_lexSense, TRAIN--MOVEMENT\_lexSense, TRAIN--ORIENTATION--ETCS\_lexSense, TRAIN--PATH\_lexSense, TRAIN--POSITION--CONFIDENCE--INTERVAL\_lexSense, TRAIN--PREPARATION\_lexSense, TRAIN--PROTECTION--SYSTEM\_lexSense, TRAIN--RUNNING--INTERRUPTED\_lexSense, TRAIN--TIME--OF--ESTIMATED--ARRIVAL\_lexSense, TRAIN--TRIP\_lexSense, TRAIN-KM\_lexSense, TRAIN-TO-TRACK--TRANSMISSION\_lexSense, TRAINING--CENTRE\_lexSense, TRAINSET\_lexSense, TRAIN\_lexSense, TRAM-TRAIN\_lexSense, TRANS-EUROPEAN--NETWORK\_lexSense, TRANS-EUROPEAN--RAIL--NETWORK\_lexSense, TRANSHIPMENT\_lexSense, TRANSITION--BUFFER\_lexSense, TRANSITIONS\_lexSense, TRANSIT\_lexSense, TRANSMISSION--CONTROL--PROTOCOL\_INTERNET--PROTOCOL\_lexSense, TRANSMISSION--CONTROL--PROTOCOL\_lexSense, TRANSMISSION--MODE--TABLE\_lexSense, TRANSPONDER\_lexSense, TRANSPORT--CONNECTION--ENDPOINT--IDENTIFIER\_lexSense, TRANSPORT--CONNECTION\_lexSense, TRANSPORT--CONTRACT\_lexSense, TRANSPORT--KEY\_lexSense, TRANSPORT--MODE\_lexSense, TRANSPORT--PROTOCOL--CLASS--2\_lexSense, TRANSPORT--PROTOCOL--DATA--UNIT\_lexSense, TRANSPORT--PROTOCOL\_lexSense, TRANSPORT--SERVICE--ACCESS--POINT\_lexSense, TRANSPORT--SERVICE--DATA--UNIT\_lexSense, TRANSPORT--SERVICE--PROVIDER\_lexSense, TRANSPORT--SERVICE\_lexSense, TRESPASSER\_lexSense, TRIP--MODE\_lexSense, TRIP--PLAN\_lexSense, TRIPLE-KEY\_lexSense, TS--%3D--TICKETING--SYSTEM--TO--BE--PROVIDED--BY--CENTRAL--INSTANCE--TO--ALLOW--INFORMATION--O\_lexSense, TWO-PHASE--COMMIT\_lexSense, TYPE--OF--OPERATION\_lexSense, TYPE\_lexSense, UNAUTHORISED--DIRECTION--MOVEMENT--PROTECTION\_lexSense, UNAUTHORISED--MOVEMENT\_lexSense, UNCOMMISSIONED--AREA\_lexSense, UNDER-READING--AMOUNT\_lexSense, UNFILLER\_lexSense, UNFITTED--AREA\_lexSense, UNFITTED--MODE\_lexSense, UNGUIDED--LENGTH--OF--AN--OBTUSE--CROSSING\_lexSense, UNIFE--ETCS--WORKING--GROUP\_lexSense, UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexSense, UNION--RAIL--SYSTEM\_lexSense, UNIT--CAPACITY--USED\_lexSense, UNIT--LOAD\_lexSense, UNIT--TRAIN\_lexSense, UNIT\_lexSense, UNIVERSAL--TIME--CO-ORDINATED\_lexSense, UNLOADER\_lexSense, UNNUMBERED--ACKNOWLEDGE\_lexSense, UNNUMBERED--INFORMATION--HDLC--FRAME\_lexSense, UNPROTECTED--WRONG--SIDE--FAILURE\_lexSense, UPGRADE--OF--THE--RAILWAY--INFRASTRUCTURE\_lexSense, UPGRADING\_lexSense, URBAN--AND--SUBURBAN--SERVICES\_lexSense, USABLE--LENGTH--OF--A--PLATFORM\_lexSense, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION---IF--NOT--PROVIDED--A--DEFAULT--VALUE--WILL--BE--USED\_lexSense, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION\_lexSense, VALIDATION\_lexSense, VALIDATOR\_lexSense, VAN\_lexSense, VARIABLE\_lexSense, VB\_lexSense, VEHICLE--IN--OPERATION\_lexSense, VEHICLE\_lexSense, VERIFICATION--AND--VALIDATION\_lexSense, VERIFICATION\_lexSense, VERIFIER\_lexSense, VERTICALLY--INTEGRATED--UNDERTAKING\_lexSense, VIABLE--ALTERNATIVE\_lexSense, VIRTUAL--BALISE--COVER\_lexSense, VITAL\_lexSense, VM1+----------\_lexSense, WAGON--KEEPERS\_lexSense, WAGON--LOAD\_lexSense, WAGON\_lexSense, WARNING--SUPERVISION--LIMIT\_lexSense, WARNING\_lexSense, WAYBILL\_lexSense, WHEELSLIDE\_lexSense, WHEELSLIP\_lexSense, WORK--PASSENGER\_lexSense, WORKING--TIMETABLE\_lexSense, WRONG--SIDE--FAILURE\_lexSense, WRONG--SIDE--SIGNALLING--FAILURE\_lexSense

### 123 ontolex:LexicalSense MODIFIED from lex\_sp-defs-240306:

ACCIDENT\_lexSense, ADM-----AUTOMATIC--DRIVING--MODULE\_lexSense, APM-----AUTOMATIC--PROCESSING--MODULE\_lexSense, ATO-----AUTOMATIC--TRAIN--OPERATION\_lexSense, AUTHENTICATION\_lexSense, AUTOMATIC--TRAIN--OPERATION\_lexSense, AVAILABILITY\_lexSense, C-DAS-----CONNECTED--DRIVER--ADVISORY--SYSTEM\_lexSense, CAPACITY--MANAGEMENT--SYSTEM\_lexSense, CMD-----COLD--MOVEMENT--DETECTOR\_lexSense, COMPARTMENT\_lexSense, CONFIGURATION--MANAGEMENT\_lexSense, CONFIGURATION\_lexSense, CONSTRAINT\_lexSense, CONTROL-COMMAND--AND--SIGNALLING\_lexSense, CROSS-ACCEPTANCE\_lexSense, CUSTOMER\_lexSense, CVR-OB-----CABIN--VOICE--RADIO--ON-BOARD\_lexSense, DAC-----DIGITAL--AUTOMATIC--COUPLING\_lexSense, DAS-----DRIVER--ADVISORY--SYSTEM\_lexSense, DIAGNOSTICS\_lexSense, DM-----DIGITAL--MAP\_lexSense, DMI-----DRIVER--MACHINE--INTERFACE\_lexSense, EB-----EMERGENCY--BRAKE\_lexSense, ECN-----ETHERNET--CONSIST--NETWORK\_lexSense, ENGINEERING--DATA\_lexSense, ENGINEERING--INPUT--DATA\_lexSense, ERA-----EUROPEAN--RAILWAY--AGENCY\_lexSense, ERG-----EURO--RADIO--GATEWAY\_lexSense, ERTMS-----EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexSense, ETCS-----EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexSense, ETP-OB-----EUROPEAN--TRAIN--PROTECTION--ON-BOARD\_lexSense, EUG-----ERTMS--USERS--GROUP\_lexSense, EUROPEAN--COMMISSION\_lexSense, EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexSense, EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexSense, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexSense, EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexSense, EVC-----EUROPEAN--VITAL--COMPUTER\_lexSense, FAIL-SAFE\_lexSense, FAILURE\_lexSense, FAULT--DETECTION--TIME\_lexSense, FFFIS-----FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense, FIS-----FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense, FORECAST\_lexSense, FP-----FLAGSHIP--PROJECTS\_lexSense, FRMCS-----FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexSense, FS-----FULLING--SUPERVISION--MODE--IN--ETCS\_lexSense, FUNCTIONAL--APPORTIONMENT\_lexSense, FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense, FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexSense, FUNCTION\_lexSense, FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexSense, FVA-----FUNCTIONAL--VEHICLE--ADAPTER\_lexSense, GOA-----GRADE--OF--AUTOMATION\_lexSense, GSM-R-----GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexSense, GW-----GATEWAY\_lexSense, HYPERTEXT--TRANSFER--PROTOCOL\_lexSense, IDENTITY\_lexSense, INCIDENT\_lexSense, INFRASTRUCTURE--MANAGER\_lexSense, INFRASTRUCTURE\_lexSense, INTERLOCKING\_lexSense, INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexSense, INTEROPERABILITY--CONSTITUENTS\_lexSense, INTEROPERABILITY\_lexSense, JP-----JOURNEY--PROFILE\_lexSense, LOC-OB-----LOCALISATION--ON-BOARD\_lexSense, LOGICAL--ACTOR\_lexSense, LTM-----LOOP--TRANSMISSION--MODULE\_lexSense, LWG-----LOCALISATION--WORKING--GROUP\_lexSense, MAINTAINABILITY\_lexSense, MANUFACTURER\_lexSense, MBSE-----MODEL-BASED--SYSTEM--ENGINEERING\_lexSense, MDCM-----MULTI-DIMENSIONAL--CONFIGURATION--MANAGEMENT\_lexSense, MDS-----MULTI--DISPLAY--SYSTEM\_lexSense, MEAN--TIME--BETWEEN--FAILURE\_lexSense, MID-----MISSION--DATA\_lexSense, MODE\_lexSense, MOVING--BLOCK\_lexSense, NATIONAL--SAFETY--AUTHORITY\_lexSense, NEW--DEFINITION\_lexSense, NP-----NO--POWER--MODE--IN--ETCS\_lexSense, NTC-----NATIONAL--TRAIN--CONTROL\_lexSense, NTP-----NATIONAL--TRAIN--PROTECTION\_lexSense, OB-----ON-BOARD\_lexSense, OCORA-----OPEN--CCS--ON-BOARD--REFERENCE--ARCHITECTURE\_lexSense, ODOMETRY\_lexSense, OE-----OPERATIONAL--EXECUTION\_lexSense, OPERATIONAL--HAZARD\_lexSense, PER-----PERCEPTION\_lexSense, QOS-----QUALITY--OF--SERVICE\_lexSense, RADIO--BLOCK--CENTRE\_lexSense, RAILWAY--UNDERTAKING\_lexSense, REAL--TIME\_lexSense, REFERENCE--LOCATION\_lexSense, REP-----REPOSITORY\_lexSense, RISK\_lexSense, ROLL--AWAY\_lexSense, RU-----RAILWAY--UNDERTAKING\_lexSense, SAFE--STATE\_lexSense, SCV-OB-----SIGNAL--CONVERTER-ON-BOARD\_lexSense, SERIOUS--ACCIDENT\_lexSense, SIL-----SAFETY--INTERITY--LEVEL\_lexSense, SP-----SYSTEM--PILLAR\_lexSense, SWITCH\_lexSense, SYSTEM--ACTOR\_lexSense, SYSTEM--REQUIREMENTS--SPECIFICATION\_lexSense, SYSTEM\_lexSense, TAP-----TELEMATICS--APPLICATION--FOR--PASSENGER--SERVICE\_lexSense, TCMS-----TRAIN--CONTROL--AND--MANAGEMENT--SYSTEM\_lexSense, TDS-----TRAIN--DISPLAY--SYSTEM\_lexSense, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexSense, TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexSense, TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexSense, TERMINAL--OPERATOR\_lexSense, TIMS-----TRAIN--INTEGRITY--MANAGEMENT--SYSTEM\_lexSense, TRAFFIC--MANAGEMENT--SYSTEM\_lexSense, TRAIN--RUNNING--NUMBER\_lexSense, TRD-----TRAIN--DATA\_lexSense, TTD-----TRACKSIDE--TRAIN--DETECTION\_lexSense, UNISIG-----UNION--INDUSTRY--OF--SIGNALLING\_lexSense, VLAN-----VIRTUAL--LOCAL--AREA--NETWORK\_lexSense

## ontolex:LexicalConcept entities

### 909 ontolex:LexicalConcept in lex\_sp-defs-240619:

### 128 ontolex:LexicalConcept NEW from lex\_sp-defs-240306:

1D--REFERENCE--FRAME\_lexConcept, 3D--REFERENCE--FRAME\_lexConcept, 4-2-17-1---ETCS--SYSTEM--COMPATIBILITY\_lexConcept, ABSOLUTE--POSITION--REFERENCE--FRAME\_lexConcept, ACCURACY\_lexConcept, ADD--TRAIN\_lexConcept, ANGULAR--RATE\_lexConcept, ARCHITECTURE--TRADEOFF--ANALYSIS--METHOD\_lexConcept, ARCHITECTURE--TRADEOFF--ANALYSIS--METHOD\_lexConcept\_2, ARRIVAL--DATETIME--CHANGE\_lexConcept, ATO--AUTOMATIC--TRAIN--OPERATION--AOC--AREA--OF--CONTROL--CCS--CONTROL--COMMAND--AND--SIGNAL\_lexConcept, ATTITUDE--REFERENCE--FRAME\_lexConcept, ATTRIBUTE\_lexConcept, AUTHORISED--USER\_lexConcept, AUTHORISING--ENTITY-----AUTHORISING--ENTITY--MEANS--THE--ENTITY--THAT--ISSUES--THE--VEHICLE\_lexConcept, BASIC--ADVANCED--SAFE--TRAIN--POSITIONING--BASIC--ASTP\_lexConcept, BUILDINGBLOCKCONFIGURATION--\_CONFIGURATION-JSON\_--DOCUMENT\_lexConcept, CARRIAGE--FRONT--END\_lexConcept, CCS-----CONTROL-COMMAND--AND--SIGNALLING\_lexConcept, COMMAND--CONTROL--SYSTEM--TSI\_lexConcept, COMPLETE--TRAIN--CANCELLATION\_lexConcept, COMPLETENESS\_lexConcept, CONFIDENCE--INTERVAL\_lexConcept, CONFIG--ITEM\_lexConcept, CONFIGURATION--MANAGEMENT--SYSTEM\_lexConcept, CONNECTION--CHANGE\_lexConcept, CONSTRAINT\_lexConcept\_2, DELETE-----CCS--CONFIGURATION--MANIFEST\_lexConcept, DEPARTURE--DATETIME--CHANGE\_lexConcept, DIAGNOSTICS\_lexConcept\_2, DIFFUSE--OPERATIONAL--STATE\_lexConcept, DIRECT--TRACK--POSSESSION--\_--OCCUPANCY\_lexConcept, DISTRIBUTIONJOB--\_DISTRIBUTION-JOB-JSON\_--DOCUMENT\_lexConcept, DRIVING--STRATEGY--CHANGE\_lexConcept, DRIVING--STRATEGY\_lexConcept, DYNAMIC--BUSINESS--RULES\_lexConcept, ELEMENT\_lexConcept, END--OCCUPANCY--LOCATION\_lexConcept, END--OCCUPANCY--TIME\_lexConcept, ENGINEERING--DATA\_lexConcept\_3, ENGINEERING--INPUT--DATA\_lexConcept\_2, ESTIMATED--DISTANCE\_lexConcept, ESTIMATED--TRAIN--FRONT--END--POSITION\_lexConcept, EUROPEAN--TRAFFIC--MANAGEMENT\_lexConcept, FFFIS-----FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept, FS--DEPLOYMENT--RULES\_lexConcept, FUNCTIONAL--APPORTIONMENT\_lexConcept\_2, FUNCTIONAL--TOPOLOGY\_lexConcept, HEADWAY--DISTANCE\_lexConcept, HIGH--LEVEL--BUILDINGBLOCKS\_lexConcept, IN--THIS--DOCUMENT--THE--ABBREVIATIONS--\_IM\_--FOR--INFRASTRUCTURE--MANAGER\_--AND--\_RU\_--FO\_lexConcept, INDIRECT--TRACK--POSSESSION--\_--OCCUPANCY\_lexConcept, INDIVISIBLE--FOR--DEPLOYMENT\_lexConcept, INTEGRATION-----INTEGRATION--IS--THE--ACTIVITY--TO--COMBINATE--INDIVIDUAL--UNITS--SUBSYST\_lexConcept, JURIDICAL--RECORDER---COLLECTING--AND--STORING--JURIDICAL--DATA--E-G---JRU--DATA---SUBSET\_lexConcept, KINEMATIC--DATA\_lexConcept, LOCALISATION--INFORMATION\_lexConcept, LOGGING---IS--THE--ACTIVITY--OF--KEEPING--A--LIST--OF--EVENTS--THAT--OCCUR--IN--A--COMPUTER--SY\_lexConcept, LOGICAL--ARCHITECTURE--CONCEPT\_lexConcept, MAP--DATA\_lexConcept, MAXIMUM--STOPPING--TIME\_lexConcept, MAXIMUM--WAITING--TIME\_lexConcept, MDS-----MULTI--DISPLAY--SYSTEM--ALTERNATIVE--NAMING--FOR--TRAIN--DISPLAY--SYSTEM--NOT--YET\_lexConcept, MDS-----MULTI--DISPLAY--SYSTEM--ALTERNATIVE--NAMING--FOR--TRAIN--DISPLAY--SYSTEM--NOT--YET\_lexConcept\_2, MINIMUM--CIRCULATION--TIME\_lexConcept, MINIMUM--STOPPING--TIME\_lexConcept, MONITORING---CONTINUOUS--SUPERVISION--OF--THE--SYSTEM--CONDITION--FOR--DIAGNOSTIC--OR--PRO\_lexConcept, MULTIPLE--INDEPENDENT--LEVELS--OF--SECURITY--OR--SAFETY\_lexConcept, NATIONAL--TRAFFIC--CONTROL--CENTRE\_lexConcept, NATIONAL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept, OMS-----ONLINE--MONITORING--SYSTEM\_lexConcept, OMTS-----ON--BOARD--MULTIMEDIA--AND--TELEMATICS--SYSTEM--X2R4--EQUIVALENT--WITH--PASSENGER\_lexConcept, OMTS-----ON--BOARD--MULTIMEDIA--AND--TELEMATICS--SYSTEM--X2R4--EQUIVALENT--WITH--PASSENGER\_lexConcept\_2, ON-BOARD--MAP--DATA\_lexConcept, OPERATIONAL--HAZARD\_lexConcept\_2, OPERATIONAL--INTERFACES\_lexConcept, OPERATIONAL--TSI\_lexConcept, ORCHESTRATION--INTERFACE\_lexConcept, PARTIAL--TRAIN--CANCELATION\_lexConcept, PASSENGER--INFORMATION--TIME\_lexConcept, PAY--LOAD--TYPE\_lexConcept, PIS-----PASSENGER--INFORMATION--SYSTEM\_lexConcept, PIS-----PASSENGER--INFORMATION--SYSTEM\_lexConcept\_2, PLATFORM--CHANGE--TIME\_lexConcept, PLATFORM--CHANGE\_lexConcept, PROCEDURE\_lexConcept, PROGNOSTICS---IS--THE--ABILITY--TO--PREDICT--AN--IMPEDING--FAILURE--OF--A--SYSTEM--BASED--ON\_lexConcept, PROPERTIES--TOPOLOGY\_lexConcept, QUALITY--ATTRIBUTE\_lexConcept, RAILNETEUROPE--TRAIN--INFORMATION--SYSTEM\_lexConcept, RAILWAY--HAZARD\_lexConcept, REACTION--TIME\_lexConcept, REGIONAL--TRAFFIC--CONTROL--CENTRE\_lexConcept, RELATIVE--POSITION\_lexConcept, RINF-----RINF--MEANS--REGISTER--OF--INFRASTRUCTURE---THE--RINF--COMPREHENSIVELY--DESCRIBES\_lexConcept, ROUTE--CHANGE\_lexConcept, SEGMENT--PROFILE\_lexConcept, SENSITIVITY--POINTS\_lexConcept, SHARED--CYBERSECURITY--SERVICES\_lexConcept, SKIP--STOP\_lexConcept, SPT1-RAILWAY--SYSTEM-----COMMON--BUSINESS--OBJECTIVES--REV---63268\_lexConcept, START--OCCUPANCY--LOCATION\_lexConcept, START--OCCUPANCY--TIME\_lexConcept, SUPPLIER\_lexConcept, SUPPORTING--INFORMATION\_lexConcept, SYSTEM--HAZARD\_lexConcept, T2OD-----TASK--2---OPERATIONAL--DESIGN--DOMAIN\_lexConcept, TECHNICAL--USER\_lexConcept, THREAT--LANDSCAPE\_lexConcept, TIMESTAMP\_lexConcept, TRACK--CHANGE\_lexConcept, TRACK--TOPOLOGY\_lexConcept, TRADEOFF--POINTS\_lexConcept, TRAIN--ACTIVATE\_lexConcept, TRAIN--CONSIST--CHANGE\_lexConcept, TRAIN--DEACTIVATE\_lexConcept, TRAIN--DYNAMIC--DATA\_lexConcept, TRAIN--FRONT--END\_lexConcept, TRAIN--SEQUENCE--CHANGE\_lexConcept, TRAIN--STANDBY\_lexConcept, TRAIN--TRUE--ACCELERATION\_lexConcept, TRAIN--TRUE--POSITION\_lexConcept, TRAIN--TRUE--SPEED\_lexConcept, TSI--CCS--2023-----4-1-1---BASIC--PARAMETERS\_lexConcept, USER\_lexConcept, VALID--LOCALISATION--INFORMATION\_lexConcept, VELOCITY\_lexConcept, XML--SCHEMA--DEFINITION\_lexConcept

### 1332 ontolex:LexicalConcept REMOVED from lex\_sp-defs-240306:

%27ESSENTIAL--FUNCTIONS\_--OF--INFRASTRUCTURE--MANAGEMENT\_lexConcept, %2A--THE--CI--IS--A--PERMANENT--ESTABLISHED--BODY--OR--ASSOCIATION--TO--BE--FINANCED--THROUGH--A\_lexConcept, %2A--THE--TCG--IS--AN--INSTITUTIONALIZED--AND--RECOGNIZED--BODY--IN--THE--SECTOR--WITH--THE--RO\_lexConcept, ACCEPTABLE--MEANS--OF--COMPLIANCE\_lexConcept, ACCEPTABLE--NATIONAL--MEANS--OF--COMPLIANCE\_lexConcept, ACCESS--PARTY\_lexConcept, ACCESS--POINT--NAME\_lexConcept, ACCESSIBILITY--DATA\_lexConcept, ACCESSIBILITY--DATA\_lexConcept\_2, ACCIDENT--INVOLVING--THE--TRANSPORT--OF--DANGEROUS--GOODS\_lexConcept, ACCIDENT--TO--PERSONS--INVOLVING--ROLLING--STOCK--IN--MOTION\_lexConcept, ACCIDENT\_lexConcept\_2, ACCIDENT\_lexConcept\_3, ACCREDITATION\_lexConcept, ACKNOWLEDGEMENT--DRIVER\_lexConcept, ACKNOWLEDGEMENT\_lexConcept, ACTIVE--LEVEL--CROSSING\_lexConcept, ACTOR--VARIANT\_lexConcept, ACTUAL--POINT--RP\_lexConcept, ACTUAL--POINT--RP\_lexConcept\_2, AC\_lexConcept, AC\_lexConcept\_2, ADAPTATION--AND--REDUNDANCY--MANAGEMENT--LAYER--ENTITY\_lexConcept, ADM-----AUTOMATIC--DRIVING--MODULE\_lexConcept\_2, AGENCY\_lexConcept, AIRGAP--LANGUAGE\_lexConcept, AIRGAP\_lexConcept, ALERT--LIMIT\_lexConcept, ALERT--LIMIT\_lexConcept\_2, ALLOCATION--BODY\_lexConcept, ALLOCATION--BODY\_lexConcept\_2, ALLOCATION\_lexConcept, ALTERNATING--CURRENT\_lexConcept, ALTERNATIVE--ROUTE\_lexConcept, APM-----AUTOMATIC--PROCESSING--MODULE\_lexConcept\_2, APPLICANT\_lexConcept, APPLICANT\_lexConcept\_2, APPLICANT\_lexConcept\_3, APPLICATION--LEVEL\_lexConcept, AREA--OF--OPERATION\_lexConcept, AREA--OF--USE--OF--A--VEHICLE\_lexConcept, ARRIVAL--DATE\_TIME--ACTUAL\_lexConcept, ARRIVAL--DATE\_TIME--ESTIMATED\_lexConcept, ARRIVAL--DATE\_TIME--PLANNED\_lexConcept, ARRIVAL--DELAY--ACTUAL\_lexConcept, ARRIVAL--DELAY--EXPECTED\_lexConcept, AT--THE--DISCRETION--OF\_lexConcept, ATO-----AUTOMATIC--TRAIN--OPERATION\_lexConcept\_2, ATO--AUTOMATIC--TRAIN--OPERATION--CCS--CONTROL--COMMAND--AND--SIGNALING--CI\_CD--CONTINUOUS\_lexConcept, ATOMICITY--CONSISTENCY--ISOLATION--DURABILITY\_lexConcept, ATTEMPTED--SUICIDE\_lexConcept, ATTRIBUTING--SYSTEM\_lexConcept, ATTRIBUTOR\_lexConcept, AUTHENTICATION--KEY--SAME--AS--KMAC\_lexConcept, AUTHENTICATION--KEY\_lexConcept, AUTHENTICATION--RESPONSE\_lexConcept, AUTHENTICATION\_lexConcept\_2, AUTHORISED--PUBLIC--BODY\_lexConcept, AUTHORISED--REPRESENTATIVE\_lexConcept, AUTHORISING--TRAIN--MOVEMENTS\_lexConcept, AUTOMATIC--DRIVING--MODE\_lexConcept, AUTOMATIC--TRAIN--CONTROL\_lexConcept, AUTOMATIC--TRAIN--OPERATION\_lexConcept\_3, AUTOMATIC--TRAIN--PROTECTION\_lexConcept, AUTOMATIC--TRAIN--PROTECTION\_lexConcept\_2, AVAILABILITY\_lexConcept\_2, AVAILABILITY\_lexConcept\_3, AXLE--LOAD--SPEED--PROFILE\_lexConcept, AXLE--LOAD\_lexConcept, AXLE--LOAD\_lexConcept\_2, BALANCED--ASYNCHRONOUS--CLASS\_lexConcept, BALISE--FIXED\_lexConcept, BALISE--GROUP--CO-ORDINATE--SYSTEM\_lexConcept, BALISE--GROUP--LOCATION--REFERENCE\_lexConcept, BALISE--GROUP\_lexConcept, BALISE--SWITCHABLE\_lexConcept, BALISE--TRANSMISSION--MODULE\_lexConcept, BALISE\_lexConcept, BASELINE--RELEASE\_lexConcept, BASELINE\_lexConcept, BASIC--PARAMETER\_lexConcept, BASIC--PARAMETER\_lexConcept\_2, BINARY--CODED--DECIMAL\_lexConcept, BLOCK--TRAIN\_lexConcept, BLOCK\_lexConcept, BOOKING--SELLING\_lexConcept, BOOKING\_lexConcept, BRAKE--INTERFACE--UNIT--USED--WITH--REGARDS--TO--STM\_lexConcept, BRAKING--CURVE\_lexConcept, BRAKING--DISTANCE--EMERGENCY\_lexConcept, BRAKING--DISTANCE--SERVICE\_lexConcept, BRAKING--SYSTEMS--INDEPENDENT--OF--WHEEL-RAIL--ADHESION--CONDITIONS\_lexConcept, BRAKING--SYSTEMS--INDEPENDENT--OF--WHEEL-RAIL--ADHESION--CONDITIONS\_lexConcept\_2, BRIDGING--PLATE\_lexConcept, BROKEN--AXLE--ON--ROLLING--STOCK--IN--SERVICE\_lexConcept, BROKEN--RAIL\_lexConcept, BROKEN--WHEEL--ON--ROLLING--STOCK--IN--SERVICE\_lexConcept, BUILDING--BLOCK--CONFIGURATION--MANIFEST\_lexConcept, BUILT--ACCORDING--TO--EXISTING--DESIGN\_lexConcept, C-DAS-----CONNECTED--DRIVER--ADVISORY--SYSTEM\_lexConcept\_2, CAB--ACTIVE\_lexConcept, CAB\_lexConcept, CANT--DEFICIENCY\_lexConcept, CANT--DEFICIENCY\_lexConcept\_2, CANT\_lexConcept, CANT\_lexConcept\_2, CAPACITY--MANAGEMENT--SYSTEM\_lexConcept\_2, CAPACITY--PLAN--AND--DECISION--PROCESSING\_lexConcept, CAPACITY-ENHANCEMENT--PLAN\_lexConcept, CAPELLA--VIEWPOINT\_lexConcept, CAR--CARRIER\_lexConcept, CARRIER--JOINT\_lexConcept, CARRIER--SOLE\_lexConcept, CARRIER\_lexConcept, CARRIER\_lexConcept\_2, CAUSES\_lexConcept, CA\_lexConcept, CCS-----COMMAND--CONTROL--SIGNALLING\_lexConcept, CCS-----COMMAND--CONTROL--SIGNALLING\_lexConcept\_2, CCS--CONFIGURATION--MANAGEMENT--SYSTEM\_lexConcept, CCS--CONFIGURATION--MANIFEST\_lexConcept, CCS--CONFIGURATION\_lexConcept, CEILING--SPEED--MONITORING\_lexConcept, CERTIFICATE\_lexConcept, CERTIFICATION--FRAMEWORK--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexConcept, CHANNEL\_lexConcept, CIRCUIT--SWITCHED--PUBLIC--DATA--NETWORK\_lexConcept, CIRCUIT--SWITCHED\_lexConcept, CLEAR--A--SIGNAL\_lexConcept, CMD-----COLD--MOVEMENT--DETECTOR\_lexConcept\_2, CN-CODE\_lexConcept, COACH--ID\_lexConcept, COACH\_lexConcept, COLLISION--OF--TRAIN--WITH--OBSTACLE--WITHIN--THE--CLEARANCE--GAUGE\_lexConcept, COLLISION--OF--TRAIN--WITH--RAIL--VEHICLE\_lexConcept, COMBINED--ROAD-RAIL--TRANSPORT--COMBINED--TRANSPORT\_lexConcept, COMITE--EUROPEEN--DE--NORMALISATION\_lexConcept, COMMISSION\_lexConcept, COMMON--CROSSING\_lexConcept, COMMON--CROSSING\_lexConcept\_2, COMMON--INTERFACE\_lexConcept, COMMON--INTERFACE\_lexConcept\_2, COMMON--SAFETY--METHODS\_lexConcept, COMMON--SAFETY--TARGETS\_lexConcept, COMMON-MODE--FAULT\_lexConcept, COMMUNICATION--FUNCTIONAL--MODULE\_lexConcept, COMMUNITY--OF--EUROPEAN--RAILWAYS\_lexConcept, COMPARTMENT\_lexConcept\_3, COMPETENCE\_lexConcept, COMPETENT--AUTHORITY\_lexConcept, COMPILED--ENERGY--BILLING--DATA\_lexConcept, COMPILED--ENERGY--BILLING--DATA\_lexConcept\_2, CONDITIONAL--LEVEL--TRANSITION--ORDER\_lexConcept, CONDITIONS--MAINTENANCE\_lexConcept, CONDITIONS--OPERATING\_lexConcept, CONDITIONS--SYSTEM\_lexConcept, CONFIGURATION--MANAGEMENT\_lexConcept\_2, CONFIGURATION\_lexConcept\_2, CONFLICTING--MOVEMENTS\_lexConcept, CONFORMITY--ASSESSMENT--BODY\_lexConcept, CONFORMITY--ASSESSMENT--BODY\_lexConcept\_2, CONFORMITY--ASSESSMENT\_lexConcept, CONGESTED--INFRASTRUCTURE\_lexConcept, CONNECTION--ENDPOINT--IDENTIFIER\_lexConcept, CONSIGNEE--GOODS--RECEIVER\_lexConcept, CONSIGNEE\_lexConcept, CONSIGNMENT--NOTE\_lexConcept, CONSIGNMENT--ORDER\_lexConcept, CONSIGNMENT\_lexConcept, CONSIGNOR--SHIPPER--GOODS--SENDER\_lexConcept, CONSIGNOR\_lexConcept, CONTACT--FORCE\_lexConcept, CONTACT--FORCE\_lexConcept\_2, CONTACT--LENGTH\_lexConcept, CONTACT--LINE--SYSTEM\_lexConcept, CONTACT--LINE--SYSTEM\_lexConcept\_2, CONTACT--WIRE--UPLIFT\_lexConcept, CONTACT--WIRE--UPLIFT\_lexConcept\_2, CONTINOUS--DATA--TRANSMISSION\_lexConcept, CONTRACTING--ENTITY\_lexConcept, CONTRACTING--ENTITY\_lexConcept\_2, CONTRACTUAL--AGREEMENT\_lexConcept, CONTROL--CENTRE\_lexConcept, CONTROL--CHANNEL\_lexConcept, CONTROL-COMMAND--AND--SIGNALLING\_lexConcept\_2, CONVENTION--CONCERNING--INTERNATIONAL--CARRIAGE--BY--RAIL--CONVENTION--RELATIVE--AUX--TRANSPORTS--INTERNATIONAUX--FERROVIAIRES\_lexConcept, COOPERATION--MODE\_lexConcept, COORDINATION\_lexConcept, COST--OF--DAMAGE--TO--ENVIRONMENT\_lexConcept, COST--OF--DELAYS--AS--A--CONSEQUENCE--OF--ACCIDENTS\_lexConcept, COST--OF--MATERIAL--DAMAGE--TO--ROLLING--STOCK--OR--INFRASTRUCTURE\_lexConcept, COTS-PRODUCT\_lexConcept, CRITICALITY\_lexConcept, CROSS-BORDER--AGREEMENT\_lexConcept, CROSSWIND\_lexConcept, CROSSWIND\_lexConcept\_2, CS--MODE\_lexConcept, CT\_lexConcept, CURRENT--COLLECTOR\_lexConcept, CURRENT--COLLECTOR\_lexConcept\_2, CURRENT--POSITION\_lexConcept, CUSTOMER\_lexConcept\_2, CUSTOMER\_lexConcept\_3, CVR-OB-----CABIN--VOICE--RADIO--ON-BOARD\_lexConcept\_2, CYCLIC--REDUNDANCY--CODE\_lexConcept, DAC-----DIGITAL--AUTOMATIC--COUPLING\_lexConcept\_2, DANGER--ASPECT\_lexConcept, DANGER--POINT\_lexConcept, DANGEROUS--GOODS\_lexConcept, DANGEROUS--GOODS\_lexConcept\_2, DAS-----DRIVER--ADVISORY--SYSTEM\_lexConcept\_2, DATA--COMMUNICATION--EQUIPMENT\_lexConcept, DATA--ENCRYPTION--STANDARD--DES\_lexConcept, DATA--ENCRYPTION--STANDARD\_lexConcept, DATA--INTEGRITY\_lexConcept, DATA--TERMINAL--EQUIPMENT\_lexConcept, DATA\_lexConcept, DC\_lexConcept, DC\_lexConcept\_2, DEATH--KILLED--PERSON\_lexConcept, DECELERATION--DATA\_lexConcept, DECIBELS\_lexConcept, DECRYPTION\_lexConcept, DEFAULT--VALUE\_lexConcept, DEFINITION--AS--PER--DIRECTIVE--EU--2016\_797--OF--11--MAY--2016--ON--THE--INTEROPERABILITY\_lexConcept, DEGRADED--OPERATION\_lexConcept, DELAY\_lexConcept, DELETION--OF--A--MESSAGE\_lexConcept, DELTA--DEVIATION\_lexConcept, DEPARTURE--DATE\_TIME--ACTUAL\_lexConcept, DEPARTURE--DATE\_TIME--ACTUAL\_lexConcept\_2, DEPARTURE--DATE\_TIME--ESTIMATED\_lexConcept, DEPARTURE--DATE\_TIME--PLANNED\_lexConcept, DEPARTURE--DELAY--ACTUAL\_lexConcept, DEPARTURE--DELAY--EXPECTED\_lexConcept, DERAILMENT--OF--TRAIN\_lexConcept, DES--KEY\_lexConcept, DESIGN--OPERATING--STATE\_lexConcept, DESIGN--OPERATING--STATE\_lexConcept\_2, DESIGN--OPERATING--STATE\_lexConcept\_3, DESIGN--PHASE--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexConcept, DESIGN--TRACK--GAUGE\_lexConcept, DESIGN--TRACK--GAUGE\_lexConcept\_2, DESIGN--VALUE\_lexConcept, DESIGN--VALUE\_lexConcept\_2, DESK\_lexConcept, DESPATCH--DISPATCH\_lexConcept, DESTINATION--ADDRESS\_lexConcept, DEVELOPMENT--OF--THE--RAILWAY--INFRASTRUCTURE\_lexConcept, DIESEL--MULTIPLE--UNIT\_lexConcept, DIFFERENCE--VALUE--BETWEEN--THE--PERMITTED--SPEED--TO--E-G---DV\_EBIMINEMERGENCY--BRAKE--INTERVENTION--SPEED--MINIMUM--DV\_EBIMAX--EMERGENCY--BRAKE--INTERVENTION--SPEED--MAXIMUM\_lexConcept, DIGITAL--CAPACITY--MANAGEMENT\_lexConcept, DIRECT--CURRENT\_lexConcept, DIRECT--TRAIN\_lexConcept, DIRECTION--FLAG\_lexConcept, DIRECTIVE--2008\_57\_lexConcept, DISCONNECT\_lexConcept, DISPLAY\_lexConcept, DISTANCE--BETWEEN--TRACK--CENTRES\_lexConcept, DISTANCE--BETWEEN--TRACK--CENTRES\_lexConcept\_2, DISTRIBUTION--JOB\_lexConcept, DISTRIBUTOR\_lexConcept, DIVERSITY\_lexConcept, DM-----DIGITAL--MAP\_lexConcept\_2, DMI-----DRIVER--MACHINE--INTERFACE\_lexConcept\_2, DOMAIN--NAME--SERVER\_lexConcept, DOMESTIC--JOURNEY\_lexConcept, DOMESTIC--RAIL--PASSENGER--SERVICE\_lexConcept, DRIVER--IDENTITY\_lexConcept, DRIVER--MACHINE--INTERFACE\_lexConcept, DRIVER--MACHINE--INTERFACE\_lexConcept\_2, DRIVER\_lexConcept, DRIVING--COACH\_lexConcept, DRIVING--ON--SIGHT\_lexConcept, DRIVING--TRAILER\_lexConcept, DRIVING--VAN\_lexConcept, DUAL--CAB--ENGINE\_lexConcept, DUTY--HOLDER\_lexConcept, DYNAMIC--LATERAL--FORCE\_lexConcept, DYNAMIC--LATERAL--FORCE\_lexConcept\_2, DYNAMIC--SPEED--PROFILE\_lexConcept, EACH--USE--CASE--IS--REPRESENTED--AS--THE--SEQUENCE--OF--EVENTS--THAT--FROM--THE--IDENTIFICA\_lexConcept, EARTHWORKS\_lexConcept, EARTHWORKS\_lexConcept\_2, EB-----EMERGENCY--BRAKE\_lexConcept\_2, ECN-----ETHERNET--CONSIST--NETWORK\_lexConcept\_2, ELECTRIC--MULTIPLE--UNIT\_lexConcept, ELECTRO--CARDIOGRAM\_lexConcept, ELECTRO-PNEUMATIC\_lexConcept, ELECTROMAGNETIC--COMPATIBILITY\_lexConcept, ELECTROMAGNETIC--INTERFERENCE\_lexConcept, ELEMENTARY--FILE--SIM--CARD\_lexConcept, EMERGENCY--BRAKE--CONFIDENCE--LEVEL\_lexConcept, EMERGENCY--BRAKE--DECELERATION--CURVE\_lexConcept, EMERGENCY--BRAKE--INTERVENTION--SUPERVISION--LIMIT\_lexConcept, EMERGENCY--BRAKING\_lexConcept, EMERGENCY--CALL\_lexConcept, EMERGENCY--EXIT\_lexConcept, EMPLOYEE--OR--CONTRACTOR\_lexConcept, EN--LINE--CATEGORY\_lexConcept, EN--LINE--CATEGORY\_lexConcept\_2, ENCRYPTION\_lexConcept, ENCRYPTION\_lexConcept\_2, END--COUPLING\_lexConcept, END--OF--AUTHORITY--PASSED--WITHOUT--PERMISSION\_lexConcept, END--OF--AUTHORITY\_lexConcept, END--OF--LOOP--MARKER\_lexConcept, END--OF--MOVEMENT--AUTHORITY\_lexConcept, END-OF-LOOP-MARKER\_lexConcept, ENERGY\_lexConcept, ENGINE--ORIENTATION\_lexConcept, ENGINE\_lexConcept, ENHANCED--MULTI-LEVEL--PRECEDENCE--AND--PRE-EMPTION\_lexConcept, ENHANCED--ODOMETRY\_lexConcept, ENTITY--IN--CHARGE--OF--MAINTENANCE\_lexConcept, ENTITY--IN--CHARGE--OF--MAINTENANCE\_lexConcept\_2, ENTRANCE--SIGNAL\_lexConcept, EQUIPPED--LINE\_lexConcept, EQUIVALENT--CONICITY\_lexConcept, EQUIVALENT--CONICITY\_lexConcept\_2, ERA-----EUROPEAN--RAILWAY--AGENCY\_lexConcept\_2, ERG-----EURO--RADIO--GATEWAY\_lexConcept\_2, ERTMS-----EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_2, ERTMS\_ETCS--ON-BOARD--EQUIPMENT\_lexConcept, ESSENTIAL--REQUIREMENTS\_lexConcept, ESSENTIAL--REQUIREMENTS\_lexConcept\_2, ESTIMATED--POSITION\_lexConcept, ESTIMATED--SPEED\_lexConcept, ESTIMATED--TIME--OF--ARRIVAL\_lexConcept, ETA\_lexConcept, ETA\_lexConcept\_2, ETCS-----EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_2, ETCS--ID--TYPE--FIELD--IN--A--SAPDU\_lexConcept, ETCS--IDENTITY\_lexConcept, ETH\_lexConcept, ETH\_lexConcept\_2, ETI\_lexConcept, ETI\_lexConcept\_2, ETP-OB-----EUROPEAN--TRAIN--PROTECTION--ON-BOARD\_lexConcept\_2, ETP\_lexConcept, EUG-----ERTMS--USERS--GROUP\_lexConcept\_2, EURO-NORM\_lexConcept, EUROBALISE\_lexConcept, EUROLOOP\_lexConcept, EUROPEAN--CAPACITY--MANAGEMENT--TOOL\_lexConcept, EUROPEAN--COMMISSION\_lexConcept\_2, EUROPEAN--COMMISSION\_lexConcept\_3, EUROPEAN--COMMITTEE--FOR--ELECTROTECHNICAL--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION--ELECTROTECHNIQUE\_lexConcept, EUROPEAN--COMMITTEE--FOR--STANDARDISATION--COMITE--EUROPEEN--DE--NORMALISATION\_lexConcept, EUROPEAN--COMMUNITY\_lexConcept, EUROPEAN--ECONOMIC--INTEREST--GROUP\_lexConcept, EUROPEAN--INSTRUCTION\_lexConcept, EUROPEAN--INTEGRATED--RADIO--ENHANCED--NETWORK\_lexConcept, EUROPEAN--INTEGRATED--RAILWAY--RADIO--ENHANCED--NETWORK\_lexConcept, EUROPEAN--NORM\_lexConcept, EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_2, EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_3, EUROPEAN--RAILWAY--AGENCY\_lexConcept, EUROPEAN--RAILWAY--AGENCY\_lexConcept\_2, EUROPEAN--REGISTER--OF--AUTHORISED--TYPES--OF--VEHICLES\_lexConcept, EUROPEAN--SPECIFICATION\_lexConcept, EUROPEAN--TELECOMMUNICATION--STANDARD\_lexConcept, EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexConcept\_2, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_3, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_4, EUROPEAN--UNION--AGENCY--FOR--RAILWAYS--ALSO--REFERRED--TO--AS--AGENCY\_lexConcept, EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexConcept\_2, EUROPEAN--UNION\_lexConcept, EUROPEAN--UNION\_lexConcept\_2, EUROPEAN--VITAL--COMPUTER\_lexConcept, EURORADIO\_lexConcept, EVACUATION\_lexConcept, EVC-----EUROPEAN--VITAL--COMPUTER\_lexConcept\_2, EXCEPTIONAL--TRANSPORT\_lexConcept, EXISTING--RAIL--SYSTEM\_lexConcept, EXIT--SIGNAL\_lexConcept, EXPECTATION--WINDOW\_lexConcept, EXTENDED--MARK-UP--LANGUAGE\_lexConcept, EXTENDED--STRUCTURED--QUERY--LANGUAGE\_lexConcept, EXTENSIVE--DISRUPTIONS--TO--TRAFFIC\_lexConcept, EXTENT--OF--OPERATION\_lexConcept, EXTERNAL--COUPLING\_lexConcept, FAIL-SAFE\_lexConcept\_3, FAILURE--MODE--AND--EFFECTS--ANALYSIS\_lexConcept, FAILURE--MODE--EFFECT--AND--CRITICALITY--ANALYSIS\_lexConcept, FAILURE\_lexConcept\_2, FARE\_lexConcept, FAULT--DETECTION--TIME\_lexConcept\_2, FAULT--NEGATION--TIME\_lexConcept, FAULT\_lexConcept, FFFIS-----FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept\_2, FILE--TRANSFER--PROTOCOL\_lexConcept, FILLER\_lexConcept, FIRE--IN--ROLLING--STOCK\_lexConcept, FIRST--AUTHENTICATION--MESSAGE\_lexConcept, FIXED--BLOCK\_lexConcept, FIXED--FORMATION\_lexConcept, FIXED--NOSE--PROTECTION\_lexConcept, FIXED--NOSE--PROTECTION\_lexConcept\_2, FIXED--RAKE--OF--COACHES\_lexConcept, FLANGEWAY--DEPTH\_lexConcept, FLANGEWAY--DEPTH\_lexConcept\_2, FLANGEWAY--WIDTH\_lexConcept, FLANGEWAY--WIDTH\_lexConcept\_2, FORECAST--POINT\_lexConcept, FORECAST--TIME\_lexConcept, FORECAST\_lexConcept\_2, FOREIGN--RAIL--PASSENGER--SERVICE\_lexConcept, FOREIGN--SALE\_lexConcept, FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION--FFFIS\_lexConcept, FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept, FORM-FIT--FUNCTIONAL--SPECIFICATION\_lexConcept, FORWARD--MOVEMENT\_lexConcept, FOULING--POINT\_lexConcept, FP-----FLAGSHIP--PROJECTS\_lexConcept\_2, FRAME--REJECT\_lexConcept, FRAMEWORK--AGREEMENT\_lexConcept, FREE--WHEEL--PASSAGE--AT--CHECK--RAIL\_WING--RAIL--ENTRY\_lexConcept, FREE--WHEEL--PASSAGE--AT--CHECK--RAIL\_WING--RAIL--ENTRY\_lexConcept\_2, FREE--WHEEL--PASSAGE--AT--CROSSING--NOSE\_lexConcept, FREE--WHEEL--PASSAGE--AT--CROSSING--NOSE\_lexConcept\_2, FREE--WHEEL--PASSAGE--IN--SWITCHES\_lexConcept, FREE--WHEEL--PASSAGE--IN--SWITCHES\_lexConcept\_2, FRMCS-----FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept\_2, FS-----FULLING--SUPERVISION--MODE--IN--ETCS\_lexConcept\_2, FS--DEPLOYMENT--CONFIGURATION\_lexConcept, FULFILMENT\_lexConcept, FULL--SUPERVISION--MODE\_lexConcept, FULL-RATE--TRAFFIC--CHANNEL\_lexConcept, FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept\_2, FUNCTIONAL--INTERFACES--SPECIFICATION--FIS\_lexConcept, FUNCTIONAL--MODULE\_lexConcept, FUNCTIONAL--REQUIREMENT--SPECIFICATION\_lexConcept, FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexConcept\_2, FUNCTION\_lexConcept\_2, FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept\_3, FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept\_4, FVA-----FUNCTIONAL--VEHICLE--ADAPTER\_lexConcept\_2, GATEWAY\_lexConcept, GAUGE\_lexConcept, GAUGE\_lexConcept\_2, GAUGE\_lexConcept\_3, GAUGE\_lexConcept\_4, GENERAL--CONDITIONS--OF--CARRIAGE\_lexConcept, GENERAL--OPERATION\_lexConcept, GENERAL--PACKET--RADIO--SERVICE\_lexConcept, GLOBAL--PRICE--TRAIN\_lexConcept, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS------RAIL\_lexConcept, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexConcept, GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS\_lexConcept, GOA-----GRADE--OF--AUTOMATION\_lexConcept\_2, GRAPHICAL--USER--INTERFACE\_lexConcept, GROSS--WEIGHT--OF--LOAD\_lexConcept, GSM-R-----GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexConcept\_2, GUIDANCE--CURVE\_lexConcept, GW-----GATEWAY\_lexConcept\_2, HANDLING--POINT\_lexConcept, HANDOVER--POINT\_lexConcept, HANDOVER--POINT\_lexConcept\_2, HARMONISED--STANDARD\_lexConcept, HAULAGE\_lexConcept, HBW\_lexConcept, HBW\_lexConcept\_2, HEALTH--AND--SAFETY--CONDITIONS\_lexConcept, HEAVY--MAINTENANCE\_lexConcept, HEIGHT--OF--CHECK--RAIL\_lexConcept, HEIGHT--OF--CHECK--RAIL\_lexConcept\_2, HIGH--LEVEL--DATA--LINK--CONTROL\_lexConcept, HIGH--SPEED--PASSENGER--SERVICES\_lexConcept, HIRER\_lexConcept, HOME--KMC\_lexConcept, HOT--AXLE--BOX\_lexConcept, HS--CODE\_lexConcept, HYPERTEXT--TRANSFER--PROTOCOL\_lexConcept\_2, IDENTIFICATION--AND--AUTHENTICATION\_lexConcept, IDENTITY\_lexConcept\_2, IM--ENTRY--POINT\_lexConcept, IM--EXIT--POINT\_lexConcept, IMMEDIATE--ACTION--LIMIT\_lexConcept, IMMEDIATE--ACTION--LIMIT\_lexConcept\_2, IMMEDIATE--LEVEL--TRANSITION--ORDER\_lexConcept, IM\_lexConcept, IN--ADVANCE--OF\_lexConcept, IN--REAR--OF\_lexConcept, IN--SERVICE--VALUE\_lexConcept, IN--SERVICE--VALUE\_lexConcept\_2, INCIDENT\_lexConcept\_2, INCIDENT\_lexConcept\_3, INDEPENDENCE--TECHNICAL\_lexConcept, INDICATION--SUPERVISION--LIMIT\_lexConcept, INFILL--INFORMATION\_lexConcept, INFILL--LOOP\_lexConcept, INFORMATION--POINT\_lexConcept, INFRASTRUCTURE--CAPACITY\_lexConcept, INFRASTRUCTURE--INSPECTION--VEHICLES\_lexConcept, INFRASTRUCTURE--MANAGER--IM\_lexConcept, INFRASTRUCTURE--MANAGER\_lexConcept\_10, INFRASTRUCTURE--MANAGER\_lexConcept\_11, INFRASTRUCTURE--MANAGER\_lexConcept\_12, INFRASTRUCTURE--MANAGER\_lexConcept\_3, INFRASTRUCTURE--MANAGER\_lexConcept\_4, INFRASTRUCTURE--MANAGER\_lexConcept\_5, INFRASTRUCTURE--MANAGER\_lexConcept\_6, INFRASTRUCTURE--MANAGER\_lexConcept\_7, INFRASTRUCTURE--MANAGER\_lexConcept\_8, INFRASTRUCTURE--MANAGER\_lexConcept\_9, INITIAL--ASSESSMENT--FRAMEWORK--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexConcept, INNER--COUPLING\_lexConcept, INSERTION--OF--A--NEW--MESSAGE\_lexConcept, INTEGRATED--RESERVATION--TICKETS\_lexConcept, INTEGRATED--SERVICES--DIGITAL--NETWORK\_lexConcept, INTERCHANGE--BETWEEN--CARRIERS\_lexConcept, INTERCHANGE--POINT\_lexConcept, INTERCHANGE--POINT\_lexConcept\_2, INTERCHANGE\_lexConcept, INTERLOCKING\_lexConcept\_3, INTERMEDIATE--COUPLING\_lexConcept, INTERMEDIATE--POINT\_lexConcept, INTERMEDIATE--POINT\_lexConcept\_2, INTERMITTENT--TRANSMISSION\_lexConcept, INTERMODAL--LOADING--UNIT\_lexConcept, INTERMODAL--SERVICE--INTEGRATOR\_lexConcept, INTERMODAL--TERMINAL\_lexConcept, INTERMODAL--TRANSPORT\_lexConcept, INTERNATIONAL--ELECTRO-TECHNICAL--COMMISSION\_lexConcept, INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexConcept\_2, INTERNATIONAL--FREIGHT--SERVICE\_lexConcept, INTERNATIONAL--JOURNEY\_lexConcept, INTERNATIONAL--ORGANISATION--FOR--STANDARDISATION\_lexConcept, INTERNATIONAL--PASSENGER--SERVICE\_lexConcept, INTERNATIONAL--RAIL--PASSENGER--SERVICE\_lexConcept, INTERNATIONAL--SALE\_lexConcept, INTERNATIONAL--STANDARDISATION--ORGANISATION\_lexConcept, INTERNATIONAL--TELECOMMUNICATION--UNION\_lexConcept, INTERNATIONAL--UNION--OF--RAILWAYS--UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexConcept, INTERNET--PROTOCOL\_lexConcept, INTERNET--PROTOCOL\_lexConcept\_2, INTEROPERABILITY--CONSTITUENTS\_lexConcept\_2, INTEROPERABILITY--CONSTITUENTS\_lexConcept\_3, INTEROPERABILITY--CONSTITUENTS\_lexConcept\_4, INTEROPERABILITY--CONSTITUENT\_lexConcept, INTEROPERABILITY--CONSTITUENT\_lexConcept\_2, INTEROPERABILITY--OPERATIONAL\_lexConcept, INTEROPERABILITY--TECHNICAL\_lexConcept, INTEROPERABILITY\_lexConcept\_3, INTEROPERABILITY\_lexConcept\_4, INTEROPERABLE--WHEELCHAIR--TRANSPORTABLE--BY--TRAIN\_lexConcept, INTERSECTION--POINT--IP\_lexConcept, INTERSECTION--POINT--IP\_lexConcept\_2, INTERVENTION--LIMIT\_lexConcept, INTERVENTION--LIMIT\_lexConcept\_2, INTERVENTION\_lexConcept, INVESTIGATION\_lexConcept, INVESTIGATOR-IN-CHARGE\_lexConcept, ISOLATED--DEFECT\_lexConcept, ISOLATED--DEFECT\_lexConcept\_2, ISOLATION--MODE\_lexConcept, ISSUER\_lexConcept, JOURNEY--PLANNER\_lexConcept, JOURNEY--SECTION\_lexConcept, JOURNEY\_lexConcept, JOURNEY\_lexConcept\_2, JP-----JOURNEY--PROFILE\_lexConcept\_2, JURIDICAL--DATA\_lexConcept, KEEPER\_lexConcept, KEEPER\_lexConcept\_2, KEEPER\_lexConcept\_3, KEEPER\_lexConcept\_4, KERNEL\_lexConcept, KEY--MANAGEMENT--CENTRE\_lexConcept, KEY--MANAGEMENT--SYSTEM\_lexConcept, KEY--MANAGEMENT\_lexConcept, KEY--VALIDITY--PERIOD\_lexConcept, KEY\_lexConcept, KM--DOMAIN\_lexConcept, KVB--EBICAB--RSDD\_lexConcept, LAST--RELEVANT--BALISE--GROUP\_lexConcept, LATERAL--DEVIATION\_lexConcept, LATERAL--DEVIATION\_lexConcept\_2, LEAD--RAILWAY--UNDERTAKING\_lexConcept, LEADING--ENGINE\_lexConcept, LENGTH--OF--TRAIN\_lexConcept, LESS--THAN--CONTAINER--LOADS\_lexConcept, LEVEL--0--AREA\_lexConcept, LEVEL--0\_lexConcept, LEVEL--1--AREA\_lexConcept, LEVEL--1\_lexConcept, LEVEL--2--AREA\_lexConcept, LEVEL--2\_lexConcept, LEVEL--ACCESS\_lexConcept, LEVEL--ACCESS\_lexConcept\_2, LEVEL--CROSSING--ACCIDENT\_lexConcept, LEVEL--CROSSING--USER\_lexConcept, LEVEL--CROSSING\_lexConcept, LEVEL--CROSSING\_lexConcept\_2, LEVEL--CROSSING\_lexConcept\_3, LEVEL--CROSSING\_lexConcept\_4, LEVEL--NTC--AREA\_lexConcept, LEVEL--NTC\_lexConcept, LEVEL--TRANSITION--ANNOUNCEMENT\_lexConcept, LEVEL--TRANSITION--BORDER\_lexConcept, LEVEL--TRANSITION--INFORMATION\_lexConcept, LEVEL--TRANSITION--ORDER\_lexConcept, LEVEL\_lexConcept, LICENCE\_lexConcept, LICENSING--AUTHORITY\_lexConcept, LIFECYCLE--COST--SYSTEM\_lexConcept, LIFECYCLE--SYSTEM\_lexConcept, LIGHT--RAIL\_lexConcept, LIGHT--RAIL\_lexConcept\_2, LIMIT--OF--AUTHORITY\_lexConcept, LIMITED--SUPERVISION--MODE\_lexConcept, LINE--KM\_lexConcept, LINE--SIDE--ELECTRONIC--UNIT\_lexConcept, LINE--SIDE--EQUIPMENT\_lexConcept, LINE--SPEED\_lexConcept, LINE--SPEED\_lexConcept\_2, LINE--SPEED\_lexConcept\_3, LINE--SPEED\_lexConcept\_4, LINE--UNDER--CONSTRUCTION\_lexConcept, LINE\_lexConcept, LINK--ACCESS--PROTOCOL--BALANCED\_lexConcept, LINKING--DISTANCE\_lexConcept, LINKING--INFORMATION\_lexConcept, LINKING\_lexConcept, LOADER\_lexConcept, LOC-OB-----LOCALISATION--ON-BOARD\_lexConcept\_2, LOCAL--TIME\_lexConcept, LOCATION--ITEM\_lexConcept, LOCO--ID\_lexConcept, LOCOMOTIVES--AND--PASSENGER--ROLLING--STOCK\_lexConcept, LOCOMOTIVE\_lexConcept, LOGICAL--ARCHITECTUR--CONCEPT\_lexConcept, LOOP--MESSAGE--FORMAT\_lexConcept, LOOP--TRANSMISSION--MODULE\_lexConcept, LOOP\_lexConcept, LOOP\_lexConcept\_2, LOWEST--SUPERVISED--SPEED--WITHIN--THE--MOVEMENT--AUTHORITY\_lexConcept, LRU\_lexConcept, LTM-----LOOP--TRANSMISSION--MODULE\_lexConcept\_2, LWG-----LOCALISATION--WORKING--GROUP\_lexConcept\_2, MAIN--SIGNAL\_lexConcept, MAINTAINABILITY\_lexConcept\_2, MAINTENANCE--FILE\_lexConcept, MAINTENANCE--FILE\_lexConcept\_2, MAINTENANCE--OF--THE--RAILWAY--INFRASTRUCTURE\_lexConcept, MAINTENANCE--PLAN\_lexConcept, MAINTENANCE--PLAN\_lexConcept\_2, MAINTENANCE--PLAN\_lexConcept\_3, MAINTENANCE--PLAN\_lexConcept\_4, MAKE--AVAILABLE\_lexConcept, MALFUNCTION\_lexConcept, MANAGEMENT--BOARD\_lexConcept, MANAGEMENT\_lexConcept, MANDATORY--FEATURE\_lexConcept, MANDATORY--PARAMETER\_lexConcept, MANDATORY\_lexConcept, MANIFEST--ON--LIST\_lexConcept, MANUAL--LEVEL--CHANGE\_lexConcept, MANUFACTURER\_lexConcept\_2, MARKET--PRICE\_lexConcept, MAX--SAFE--ANTENNA--POSITION\_lexConcept, MAX--SAFE--FRONT--END\_lexConcept, MAY\_lexConcept, MAY\_lexConcept\_2, MBSE-----MODEL-BASED--SYSTEM--ENGINEERING\_lexConcept\_2, MDCM-----MULTI-DIMENSIONAL--CONFIGURATION--MANAGEMENT\_lexConcept\_2, MDS-----MULTI--DISPLAY--SYSTEM\_lexConcept\_2, MEAN--CONTACT--FORCE\_lexConcept, MEAN--CONTACT--FORCE\_lexConcept\_2, MEAN--TIME--BETWEEN--FAILURE\_lexConcept\_2, MEAN--USEFUL--VOLTAGE--TRAIN\_lexConcept, MEAN--USEFUL--VOLTAGE--ZONE\_lexConcept, MESSAGE--AUTHENTICATION--CODE--MAC\_lexConcept, MESSAGE--AUTHENTICATION--CODE--MAC\_lexConcept\_2, MESSAGE--AUTHENTICATION--CODE\_lexConcept, MESSAGE--TYPE--IDENTIFIER\_lexConcept, MESSAGE\_lexConcept, MESSAGE\_lexConcept\_2, METADATA\_lexConcept, METADATA\_lexConcept\_2, MID-----MISSION--DATA\_lexConcept\_2, MIN--SAFE--ANTENNA--POSITION\_lexConcept, MIN--SAFE--FRONT--END\_lexConcept, MINIMUM--CONTACT--WIRE--HEIGHT\_lexConcept, MINIMUM--CONTACT--WIRE--HEIGHT\_lexConcept\_2, MINOR--FAILURE\_lexConcept, MISSION--ETCS\_lexConcept, MISSION\_lexConcept, MNID--LIST--IS--A--LIST--OF--MOBILE--NETWORK--IDS\_lexConcept, MOBILE--RADIO--FOR--RAILWAY--NETWORKS--IN--EUROPE\_lexConcept, MOBILE--SUBSYSTEM\_lexConcept, MOBILE--TERMINATION\_lexConcept, MODE\_lexConcept\_2, MODIFICATION--OF--A--MESSAGE\_lexConcept, MOST--RELEVANT--DISPLAYED--TARGET\_lexConcept, MOST--RESTRICTIVE--SPEED--PROFILE\_lexConcept, MOVEABLE--STEP\_lexConcept, MOVEMENT--AUTHORITY\_lexConcept, MULTI-RAIL--TRACK\_lexConcept, MULTI-RAIL--TRACK\_lexConcept\_2, MULTIPLE--OPERATION\_lexConcept, MULTIPLE--UNITS\_lexConcept, MUST--NOT\_lexConcept, MUST\_lexConcept, NATIONAL--ACCREDITATION--BODY\_lexConcept, NATIONAL--ADD-ON\_lexConcept, NATIONAL--INSTRUCTION\_lexConcept, NATIONAL--RULES\_lexConcept, NATIONAL--RULES\_lexConcept\_2, NATIONAL--SAFETY--AUTHORITY\_lexConcept\_2, NATIONAL--SAFETY--AUTHORITY\_lexConcept\_3, NATIONAL--SYSTEM--MODE\_lexConcept, NATIONAL--TRAIN--CONTROL--SYSTEM\_lexConcept, NATIONAL--TRAIN--CONTROL\_lexConcept, NATIONAL--VALUES\_lexConcept, NETWORK--PROTOCOL--DATA--UNIT\_lexConcept, NETWORK--SERVICE--ACCESS--POINT\_lexConcept, NETWORK--SERVICE--DATA--UNIT\_lexConcept, NETWORK--STATEMENT\_lexConcept, NETWORK--TERMINATION\_lexConcept, NETWORK\_lexConcept, NETWORK\_lexConcept\_2, NEW--DEFINITION\_lexConcept\_2, NO--POWER--MODE\_lexConcept, NOISE\_lexConcept, NOMINAL--CONTACT--WIRE--HEIGHT\_lexConcept, NOMINAL--CONTACT--WIRE--HEIGHT\_lexConcept\_2, NOMINAL--TRACK--GAUGE\_lexConcept, NOMINAL--TRACK--GAUGE\_lexConcept\_2, NOMINAL--VOLTAGE\_lexConcept, NOMINAL--VOLTAGE\_lexConcept\_2, NON--LEADING--MODE\_lexConcept, NON-EQUIPPED--LINE\_lexConcept, NON-INTEGRATED--RESERVATION--TICKETS\_lexConcept, NON-LEADING--MODE\_lexConcept, NON-VITAL\_lexConcept, NORMAL--SERVICE\_lexConcept, NORMAL--SERVICE\_lexConcept\_2, NORMAL--SERVICE\_lexConcept\_3, NORMAL--SERVICE\_lexConcept\_4, NOTIFIED--BODIES\_lexConcept, NP-----NO--POWER--MODE--IN--ETCS\_lexConcept\_2, NRT--TRAIN\_lexConcept, NTC-----NATIONAL--TRAIN--CONTROL\_lexConcept\_2, NTP-----NATIONAL--TRAIN--PROTECTION\_lexConcept\_2, OAB\_--\_ENTITIES\_ACTORS\_lexConcept, OAB\_--\_PROCESS--INVOLVEMENT\_lexConcept, OAB\_lexConcept, OAIB\_--\_OPERATIONAL--PROCESS\_lexConcept, OB-----ON-BOARD\_lexConcept\_2, OBSTACLE-FREE--ROUTE\_lexConcept, OBSTACLE-FREE--ROUTE\_lexConcept\_2, OCB\_--\_INVOLVEMENT\_lexConcept, OCB\_--\_STRUCTURE\_lexConcept, OCCUPIED\_lexConcept, OCORA-----OPEN--CCS--ON-BOARD--REFERENCE--ARCHITECTURE\_lexConcept\_2, ODOMETER--ACCURACY\_lexConcept, ODOMETRY--REFERENCE--LOCATION\_lexConcept, ODOMETRY\_lexConcept\_2, OE-----OPERATIONAL--EXECUTION\_lexConcept\_2, OES\_--\_OPERATIONAL--PROCESS\_--\_SCENARIO\_lexConcept, OFF-LINE--KMS\_lexConcept, OFFER\_lexConcept, OFFICIAL--WEBSITE\_lexConcept, OMS-----ON-BOARD--MONITORING--SYSTEM\_lexConcept, OMS-----ON-BOARD--MONITORING--SYSTEM\_lexConcept\_2, ON--SIGHT--MODE\_lexConcept, ON--TRACK--MACHINES\_lexConcept, ON-BOARD--CONTROL-COMMAND--AND--SIGNALLING\_lexConcept, ON-BOARD--EQUIPMENT\_lexConcept, ON-BOARD--LIFT\_lexConcept, ON-BOARD--RAMP\_lexConcept, ON-BOARD--RECORDING--DEVICE\_lexConcept, ON-BOARD--SYSTEMS\_lexConcept, ON-BOARD--UNIT\_lexConcept, ON-GROUND--ENERGY--DATA--COLLECTING--SYSTEM--DATA--COLLECTING--SERVICE\_lexConcept, ON-GROUND--ENERGY--DATA--COLLECTING--SYSTEM--DATA--COLLECTING--SERVICE\_lexConcept\_2, ON-LINE--KMS\_lexConcept, ONE--STOP--SHOP--OSS\_lexConcept, ONE--STOP--SHOP\_lexConcept, OPD\_--\_OPERATIONAL--PROCESS\_--\_LOGIC\_lexConcept, OPEN--ACCESS--MODE\_lexConcept, OPEN--SYSTEM--INTERCONNECTION\_lexConcept, OPERATED--SYSTEM--VERSION\_lexConcept, OPERATING--LANGUAGE\_lexConcept, OPERATION--AND--MAINTENANCE\_lexConcept, OPERATION--AND--TRAFFIC--MANAGEMENT\_lexConcept, OPERATION--OF--THE--RAILWAY--INFRASTRUCTURE\_lexConcept, OPERATIONAL--INSTRUCTION\_lexConcept, OPERATOR--OF--SERVICE--FACILITY\_lexConcept, OPTIONAL--FEATURE\_OPTION\_lexConcept, ORGANISATION--FOR--COOPERATION--BETWEEN--RAILWAYS\_lexConcept, OSS\_lexConcept, OTHER--ACCIDENT\_lexConcept, OTHER--CREW--MEMBERS--PERFORMING--SAFETY-CRITICAL--TASKS\_lexConcept, OTHER--PERSON--AT--A--PLATFORM\_lexConcept, OTHER--PERSON--NOT--AT--A--PLATFORM\_lexConcept, OTHER--REFERENCE--BALISE--GROUP\_lexConcept, OVER-READING--AMOUNT\_lexConcept, OVERHEAD--CONTACT--LINE\_lexConcept, OVERHEAD--CONTACT--LINE\_lexConcept\_2, OVERLAP\_lexConcept, PACKET--DATA--NETWORK\_lexConcept, PACKET--DATA--PROTOCOL\_lexConcept, PACKET--SWITCHED--DATA\_lexConcept, PACKET--SWITCHED\_lexConcept, PACKET\_lexConcept, PADDING\_lexConcept, PANTOGRAPH\_lexConcept, PARTIAL--SUPERVISION--MODES\_lexConcept, PASSAGE\_lexConcept, PASSENGER--AREA\_lexConcept, PASSENGER--TRAIN\_lexConcept, PASSENGER-KM\_lexConcept, PASSENGER\_lexConcept, PASSENGER\_lexConcept\_2, PASSENGER\_lexConcept\_3, PASSIVE--LEVEL--CROSSING\_lexConcept, PASSIVE--PROVISION\_lexConcept, PASSIVE--PROVISION\_lexConcept\_2, PASSIVE--SHUNTING--MODE\_lexConcept, PATH--ASSEMBLY\_lexConcept, PATH--COORDINATION--SYSTEM\_lexConcept, PATH--NUMBER\_lexConcept, PATH\_lexConcept, PATH\_lexConcept\_2, PAYMENT\_lexConcept, PEER-TO-PEER\_lexConcept, PEER-TO-PEER\_lexConcept\_2, PER-----PERCEPTION\_lexConcept\_2, PERFORMANCE--MONITORING\_lexConcept, PERFORMANCE--PARAMETER\_lexConcept, PERFORMANCE--PARAMETER\_lexConcept\_2, PERMISSIVE--SIGNAL\_lexConcept, PERMITTED--BRAKING--DISTANCE--SPEED--RESTRICTION\_lexConcept, PERMITTED--SPEED--SUPERVISION--LIMIT\_lexConcept, PERMITTED--SPEED\_lexConcept, PERSON--WITH--DISABILITIES--AND--PERSON--WITH--REDUCED--MOBILITY\_lexConcept, PERSON--WITH--DISABILITIES--AND--PERSON--WITH--REDUCED--MOBILITY\_lexConcept\_2, PERSON--WITH--DISABILITIES\_lexConcept, PERSON--WITH--REDUCED--MOBILITY\_lexConcept, PERSON--WITH--REDUCED--MOBILITY\_lexConcept\_2, PERSONS--WITH--REDUCED--MOBILITY\_lexConcept, PHYSICAL--SCENARIO\_lexConcept, PIM\_lexConcept, PKI\_lexConcept, PLACE--OF--DELIVERY\_lexConcept, PLACE--OF--DEPARTURE\_lexConcept, PLACE--OF--DESTINATION--PLACE--OF--ARRIVAL\_lexConcept, PLACING--IN--SERVICE\_lexConcept, PLACING--ON--THE--MARKET\_lexConcept, PLAIN--LINE\_lexConcept, PLAIN--LINE\_lexConcept\_2, PLANNING--IM\_lexConcept, PLATFORM\_lexConcept, POINT--RETRACTION\_lexConcept, POINT--RETRACTION\_lexConcept\_2, POINT--TO--POINT--PROTOCOL\_lexConcept, POINT\_lexConcept, POSSESSION--OF--SIGNALLING--EQUIPMENT\_lexConcept, POST--TRIP--MODE\_lexConcept, POWER--HEAD\_lexConcept, POWER--UNIT\_lexConcept, PRE-DEPARTURE--PERIOD\_lexConcept, PREDEFINED--FORMATION--S\_lexConcept, PRIMARY--DATA\_lexConcept, PRIMARY--DATA\_lexConcept\_2, PROCEED--ASPECT\_lexConcept, PRODUCTION--PHASE--FOR--CCS--ON-BOARD--SUBSYSTEM\_lexConcept, PRODUCT\_lexConcept, PRODUCT\_lexConcept\_2, PROJECT--AT--AN--ADVANCED--STAGE--OF--DEVELOPMENT\_lexConcept, PROTECTED--WRONG--SIDE--FAILURE\_lexConcept, PROTOCOL--DATA--UNIT\_lexConcept, PS--MODE\_lexConcept, PS--SERVICE--SETUP\_lexConcept, PS--STATUS\_lexConcept, PUBLIC--KEY--INFRASTRUCTURE--PKI\_lexConcept, PUBLIC--KEY--INFRASTRUCTURE\_lexConcept, PUBLIC--PRIVATE--PARTNERSHIP\_lexConcept, PUBLIC--SWITCHED--TELEPHONE--NETWORK\_lexConcept, PUBLISH\_lexConcept, PUT--INTO--SERVICE\_lexConcept, QOS-----QUALITY--OF--SERVICE\_lexConcept\_2, QUALIFICATION\_lexConcept, QUALITY--OF--SERVICE\_lexConcept, RADIO--BLOCK--CENTRE\_lexConcept\_3, RADIO--COMMUNICATION--SYSTEM\_lexConcept, RADIO--HOLE\_lexConcept, RADIO--IN-FILL--UNIT\_lexConcept, RADIO--INFILL--UNIT\_lexConcept, RADIO--NETWORK--TYPE--ETCS\_lexConcept, RAIL--INCLINATION\_lexConcept, RAIL--INCLINATION\_lexConcept\_2, RAIL--INTEROPERABILITY--AND--SAFETY--COMMITTEE\_lexConcept, RAIL--PAD\_lexConcept, RAIL--PAD\_lexConcept\_2, RAIL--SYSTEM\_lexConcept, RAILCAR\_lexConcept, RAILWAY--INFRASTRUCTURE--MANAGER\_lexConcept, RAILWAY--INFRASTRUCTURE--SYSTEM\_lexConcept, RAILWAY--INFRASTRUCTURE\_lexConcept, RAILWAY--OPERATING--COMPANY\_lexConcept, RAILWAY--SYSTEM\_lexConcept, RAILWAY--TUNNEL\_lexConcept, RAILWAY--UNDERTAKING\_lexConcept\_2, RAILWAY--UNDERTAKING\_lexConcept\_3, RAILWAY--UNDERTAKING\_lexConcept\_4, RAILWAY--UNDERTAKING\_lexConcept\_5, RAILWAY--UNDERTAKING\_lexConcept\_6, RAILWAY--UNDERTAKING\_lexConcept\_7, RAILWAY--UNDERTAKING\_lexConcept\_8, RAILWAY--UNDERTAKING\_lexConcept\_9, RBC--AREA\_lexConcept, RBC\_RBC--BORDER\_lexConcept, RBC\_RBC--HANDOVER\_lexConcept, RBC\_RBC--TRANSITION\_lexConcept, REAL--TIME\_lexConcept\_2, REASONABLE--PROFIT\_lexConcept, RECOMMENDED\_lexConcept, REDUNDANCY\_lexConcept, REFERENCE--CONTOUR\_lexConcept, REFERENCE--CONTOUR\_lexConcept\_2, REFERENCE--DOCUMENT--DATABASE--HTTPS-\_RDD-ERA-EUROPA-EU\_RDD\_lexConcept, REGIONAL--SERVICES\_lexConcept, REGISTER--OF--INFRASTRUCTURE\_lexConcept, REGULAR--VS---SHORT--TERM--PROCESSES\_lexConcept, RELEASE--DATE\_TIME\_lexConcept, RELEASE--SPEED--MONITORING\_lexConcept, RELEASE--SPEED\_lexConcept, RELEASE--TIME--FOR--WAGONS\_lexConcept, RELIABILITY--AVAILABILITY--MAINTAINABILITY--SAFETY\_lexConcept, RELIABILITY--AVAILABILITY--MAINTAINABILITY--SAFETY\_lexConcept\_2, RELIABILITY\_lexConcept, RELOCATION\_lexConcept, RENEWAL--OF--THE--RAILWAY--INFRASTRUCTURE\_lexConcept, RENEWAL\_lexConcept, REP-----REPOSITORY\_lexConcept\_2, REPETITION\_REPLAY\_lexConcept, REPORTING--POINT\_lexConcept, REPORTING--POINT\_lexConcept\_2, REPORTING--POINT\_lexConcept\_3, REPOSITORY\_lexConcept, REPOSITORY\_lexConcept\_2, REQUEST\_lexConcept, RESCUE--COUPLING\_lexConcept, RESERVATION--SYSTEM\_lexConcept, RESERVATION\_lexConcept, RESPONSE\_lexConcept, RESPONSIBLE--APPLICANT--RA\_lexConcept, RESPONSIBLE--APPLICANT\_lexConcept, RESPONSIBLE--IM\_lexConcept, RESPONSIBLE--RU--RRU\_lexConcept, RESPONSIBLE--RU\_lexConcept, RETAILER\_lexConcept, RETRANSMISSION--TIMEOUT\_lexConcept, RETURN--CIRCUIT\_lexConcept, RETURN--CIRCUIT\_lexConcept\_2, REVERSE--CURVE\_lexConcept, REVERSE--CURVE\_lexConcept\_2, REVERSE--MOVEMENT\_lexConcept, REVERSING--MODE\_lexConcept, REVOCATION--OF--MOVEMENT--AUTHORITY\_lexConcept, RIGHT--SIDE--FAILURE\_lexConcept, RISK\_lexConcept\_2, RIV\_lexConcept, ROAD\_lexConcept, ROLL--AWAY--PROTECTION\_lexConcept, ROLL--AWAY\_lexConcept\_2, ROLLING--STOCK\_lexConcept, ROUTE--RELEASE\_lexConcept, ROUTE--SECTION\_lexConcept, ROUTE--SECTION\_lexConcept\_2, ROUTE--SUITABILITY--DATA\_lexConcept, ROUTE\_lexConcept, ROUTE\_lexConcept\_2, ROUTE\_lexConcept\_3, ROUTE\_lexConcept\_4, RU-----RAILWAY--UNDERTAKING\_lexConcept\_2, RUSSIAN--ABBREVIATION--FOR--PRAWILA--POLZOWANIIA--WAGONAMI--W--MEJDUNARODNOM--SOOBQENII--%3D--RULES--FOR--USE--OF--RAILWAY--VEHICLES--IN--INTERNATIONAL--TRAFFIC\_lexConcept, RU\_lexConcept, SAFE--AREA\_lexConcept, SAFE--CONNECTION--ENDPOINT--IDENTIFIER\_lexConcept, SAFE--CONSIST--LENGTH--ETCS\_lexConcept, SAFE--DECELERATION\_lexConcept, SAFE--FUNCTIONAL--MODULE\_lexConcept, SAFE--STATE\_lexConcept\_3, SAFETY--ACCEPTANCE\_lexConcept, SAFETY--AUTHORISATION\_lexConcept, SAFETY--CERTIFICATE\_lexConcept, SAFETY--FEATURES\_lexConcept, SAFETY--IN--RAILWAY--TUNNELS\_lexConcept, SAFETY--INFORMATION\_lexConcept, SAFETY--INFORMATION\_lexConcept\_2, SAFETY--INSTRUCTIONS\_lexConcept, SAFETY--INSTRUCTIONS\_lexConcept\_2, SAFETY--INTEGRITY--LEVEL\_lexConcept, SAFETY--LIFE--CYCLE\_lexConcept, SAFETY--MANAGEMENT--SYSTEM\_lexConcept, SAFETY--MANAGEMENT--SYSTEM\_lexConcept\_2, SAFETY--PROTOCOL--DATA--UNIT\_lexConcept, SAFETY--SERVICE--ACCESS--POINT\_lexConcept, SAFETY--SERVICE--DATA--UNIT\_lexConcept, SAFETY--SERVICE\_lexConcept, SAFETY--USER--DATA\_lexConcept, SAFETY-CRITICAL--TASK\_lexConcept, SAFETY\_lexConcept, SCHEDULED--STOP\_lexConcept, SCHEDULED--TIME--OF--DEPARTURE\_lexConcept, SCHEDULED--TIMETABLE\_lexConcept, SCV-OB-----SIGNAL--CONVERTER-ON-BOARD\_lexConcept\_2, SECOND--AUTHENTICATION--MESSAGE\_lexConcept, SECTION--TIMER\_lexConcept, SECTIONAL--RUNTIME--CALCULATION\_lexConcept, SECTIONING--LOCATIONS\_lexConcept, SECTION\_lexConcept, SECURITY\_lexConcept, SELECTIVE--REJECT\_lexConcept, SELLING\_lexConcept, SEMI-CONTINUOUS--TRANSMISSION\_lexConcept, SEPARATION--SECTIONS\_lexConcept, SERIES\_lexConcept, SERIOUS--ACCIDENT\_lexConcept\_2, SERIOUS--INJURY--SERIOUSLY--INJURED--PERSON\_lexConcept, SERVICE--ACCESS--POINT\_lexConcept, SERVICE--BRAKE--COMMAND--ETCS\_lexConcept, SERVICE--BRAKE--DECELERATION--CURVE\_lexConcept, SERVICE--BRAKE--OR--IN--THE--CONTEXT--OF--MODES--STAND--BY--MODE\_lexConcept, SERVICE--BRAKING\_lexConcept, SERVICE--DISRUPTION\_lexConcept, SERVICE--FACILITY\_lexConcept, SERVICE--PROVIDER\_lexConcept, SERVICE--PROVIDER\_lexConcept\_2, SERVICE\_lexConcept, SESSION--COMMUNICATION\_lexConcept, SESSION--KEY--SAME--AS--KSMAC\_lexConcept, SESSION--KEY\_lexConcept, SET--ASYNCHRONOUS--BALANCED--MODE--EXTENDED\_lexConcept, SET--SPEED\_lexConcept, SHALL\_lexConcept, SHALL\_lexConcept\_2, SHARED--SECURITY--SERVICES\_lexConcept, SHIPMENT\_lexConcept, SHORT--NOTICE--PATH--REQUEST\_lexConcept, SHORT--NOTICE--PATH--REQUEST\_lexConcept\_2, SHORT--TERM--PROCESSES\_lexConcept, SHOULD--NOT\_lexConcept, SHOULD\_lexConcept, SHOULD\_lexConcept\_2, SHUNTER\_lexConcept, SHUNTING--MODE\_lexConcept, SHUNTING--MOVEMENT\_lexConcept, SHUNTING--SIGNAL\_lexConcept, SIDING\_lexConcept, SIGNAL--LOCATION\_lexConcept, SIGNAL--PASSED--AT--DANGER--WHEN--PASSING--A--DANGER--POINT\_lexConcept, SIGNAL--PASSED--AT--DANGER--WITHOUT--PASSING--A--DANGER--POINT\_lexConcept, SIGNAL--PASSED--AT--DANGER\_lexConcept, SIGNALLER\_lexConcept, SIGNALLING--SYSTEM\_lexConcept, SIGNAL\_lexConcept, SIGNIFICANT--ACCIDENT\_lexConcept, SIGNIFICANT--DAMAGE--TO--STOCK--TRACK--OTHER--INSTALLATIONS--OR--ENVIRONMENT\_lexConcept, SIL-----SAFETY--INTERITY--LEVEL\_lexConcept\_2, SINGLE--ON-BOARD--LOCATION--REFERENCE\_lexConcept, SLAVE--ENGINE\_lexConcept, SLEEPING--MODE\_lexConcept, SOURCE--ADDRESS\_lexConcept, SP-----SYSTEM--PILLAR\_lexConcept\_2, SPECIFIC--CASE\_lexConcept, SPECIFIC--TRANSMISSION--MODULE\_lexConcept, SPEED--CONFIDENCE--INTERVAL\_lexConcept, SPOT--TRANSMISSION\_lexConcept, STAFF--RESPONSIBLE--MODE\_lexConcept, STAFF\_lexConcept, STAKEHOLDERS\_lexConcept, STAKEHOLDERS\_lexConcept\_2, STANDBY--MODE\_lexConcept, STANDSTILL--ETCS\_lexConcept, START--OF--MISSION\_lexConcept, STATIC--CONTACT--FORCE\_lexConcept, STATIC--CONTACT--FORCE\_lexConcept\_2, STATIC--SPEED--PROFILE\_lexConcept, STATION--MANAGER\_lexConcept, STATION--MANAGER\_lexConcept\_2, STATION--MANAGER\_lexConcept\_3, STATION\_lexConcept, STATION\_lexConcept\_2, STEP-FREE--ROUTE\_lexConcept, STEP-FREE--ROUTE\_lexConcept\_2, STOP--ASPECT\_lexConcept, STOP--SIGNAL\_lexConcept, STOPPING--POINT\_lexConcept, STORAGE--SIDING\_lexConcept, STRUCTURE--GAUGE\_lexConcept, STRUCTURE--GAUGE\_lexConcept\_2, STRUCTURED--QUERY--LANGUAGE\_lexConcept, SUB-SYSTEM\_lexConcept, SUBSTATIONS\_lexConcept, SUBSTITUTE--CARRIER\_lexConcept, SUBSTITUTION--IN--THE--FRAMEWORK--OF--MAINTENANCE\_lexConcept, SUBSTITUTION--IN--THE--FRAMEWORK--OF--MAINTENANCE\_lexConcept\_2, SUBSYSTEMS\_lexConcept, SUICIDE\_lexConcept, SUPERVISED--LOCATION\_lexConcept, SUPERVISED--MANOEUVRE--MODE\_lexConcept, SUPERVISORY--BOARD\_lexConcept, SUPPLIER--CERTIFIED--SOFTWARE---IT--IMPLIES--THAT--THE--SUPPLIERS--PROVIDE--SOFTWARE--DEVE\_lexConcept, SUPPORTED--SYSTEM--VERSION\_lexConcept, SWING--NOSE\_lexConcept, SWING--NOSE\_lexConcept\_2, SWITCHES--AND--CROSSINGS\_lexConcept, SWITCHES--AND--CROSSINGS\_lexConcept\_2, SWITCH\_lexConcept\_5, SWITCH\_lexConcept\_6, SYSTEM--ACTOR\_lexConcept\_2, SYSTEM--FAILURE--MODE\_lexConcept, SYSTEM--LIFE-CYCLE\_lexConcept, SYSTEM--MISSION--DEPRECATED\_lexConcept, SYSTEM--NATIONAL--MODE\_lexConcept, SYSTEM--REQUIREMENT--SPECIFICATION\_lexConcept, SYSTEM--REQUIREMENTS--SPECIFICATION\_lexConcept\_2, SYSTEM--VERSION\_lexConcept, SYSTEMATIC--FAULT\_lexConcept, SYSTEM\_lexConcept\_3, TACTILE--CONTROLS\_lexConcept, TACTILE--CONTROLS\_lexConcept\_2, TACTILE--SIGNS\_lexConcept, TACTILE--SIGNS\_lexConcept\_2, TANDEM\_lexConcept, TAP-----TELEMATICS--APPLICATION--FOR--PASSENGER--SERVICE\_lexConcept\_2, TARGET--SPEED--MONITORING\_lexConcept, TARGET\_lexConcept, TARIFF\_lexConcept, TCMS-----TRAIN--CONTROL--AND--MANAGEMENT--SYSTEM\_lexConcept\_2, TDS-----TRAIN--DISPLAY--SYSTEM\_lexConcept\_2, TECHNICAL--DOCUMENT\_lexConcept, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY--RELATING--TO--TELEMATICS\_lexConcept, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_2, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_3, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_4, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_5, TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_6, TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexConcept\_2, TECHNICAL--SPECIFICATION\_lexConcept, TELEGRAM\_lexConcept, TELEMATIC--APPLICATIONS--FOR--FREIGHT\_lexConcept, TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexConcept\_2, TELEMATICS--APPLICATIONS--FOR--PASSENGERS\_lexConcept, TEMPORARY--CAPACITY--RESTRICTION\_lexConcept, TEMPORARY--SPEED--RESTRICTION\_lexConcept, TERM--STATUS--DESCRIPTION--OPERATING--STATE--DRAFT--THE--OPERATING--STATE--DESCRIBES--THE\_lexConcept, TETA\_lexConcept, THE--ATO--PART--OF--ERTMS\_lexConcept, THE--ETCS--PART--OF--ERTMS\_lexConcept, THE--FRMCS--PART--OF--ERTMS\_lexConcept, THE--GSM-R--PART--OF--ERTMS\_lexConcept, THIRD--AUTHENTICATION--MESSAGE\_lexConcept, THIRD--PARTY\_lexConcept, THROUGH--ROUTE\_lexConcept, THROUGH--ROUTE\_lexConcept\_2, THROUGH--ROUTE\_lexConcept\_3, THROUGH--TICKET\_lexConcept, THROUGH--TICKET\_lexConcept\_2, TICKET--CONTROLLING--ORGANISATION\_lexConcept, TICKET--ON--DEPARTURE\_lexConcept, TICKET--VENDOR\_lexConcept, TICKET\_lexConcept, TIME--TO--INDICATION\_lexConcept, TIMETABLE\_lexConcept, TIMETABLE\_lexConcept\_2, TIMING--POINT\_lexConcept, TIMS-----TRAIN--INTEGRITY--MANAGEMENT--SYSTEM\_lexConcept\_2, TMS--DAILY--TOPOLOGY\_lexConcept, TOPOLOGY--MASTER--DATA--VALIDATION--AND--IMPORT\_lexConcept, TOUR--OPERATOR\_lexConcept, TRACING\_lexConcept, TRACK--BUCKLE--OR--OTHER--TRACK--MISALIGNMENT\_lexConcept, TRACK--CONDITION\_lexConcept, TRACK--DESCRIPTION\_lexConcept, TRACK--DESIGN\_lexConcept, TRACK--DESIGN\_lexConcept\_2, TRACK--FREE\_lexConcept, TRACK--GAUGE\_lexConcept, TRACK--GAUGE\_lexConcept\_2, TRACK--GEOMETRY\_lexConcept, TRACK--KM\_lexConcept, TRACK--OCCUPIED\_lexConcept, TRACK--TWIST\_lexConcept, TRACK--TWIST\_lexConcept\_2, TRACK-TO-TRAIN--TRANSMISSION\_lexConcept, TRACKING\_lexConcept, TRACKSIDE--CONTROL-COMMAND--AND--SIGNALLING\_lexConcept, TRACKSIDE--EQUIPMENT\_lexConcept, TRACKSIDE\_lexConcept, TRACTION--CUT--OFF\_lexConcept, TRACTION--UNIT\_lexConcept, TRACTION--UNIT\_lexConcept\_2, TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_5, TRAIN--CREW\_lexConcept, TRAIN--DATA\_lexConcept, TRAIN--DESPATCH\_lexConcept, TRAIN--DETECTION\_lexConcept, TRAIN--DRIVER\_lexConcept, TRAIN--ESTIMATED--TIME--OF--ARRIVAL\_lexConcept, TRAIN--INTEGRITY\_lexConcept, TRAIN--INTERFACE--UNIT\_lexConcept, TRAIN--INTERFACE\_lexConcept, TRAIN--LENGTH\_lexConcept, TRAIN--LENGTH\_lexConcept\_2, TRAIN--LOCALISATION\_lexConcept, TRAIN--MOVEMENT\_lexConcept, TRAIN--ORIENTATION--ETCS\_lexConcept, TRAIN--PATH\_lexConcept, TRAIN--PATH\_lexConcept\_2, TRAIN--PATH\_lexConcept\_3, TRAIN--POSITION--CONFIDENCE--INTERVAL\_lexConcept, TRAIN--PREPARATION\_lexConcept, TRAIN--PROTECTION--SYSTEM\_lexConcept, TRAIN--PROTECTION--SYSTEM\_lexConcept\_2, TRAIN--RUNNING--INTERRUPTED\_lexConcept, TRAIN--RUNNING--NUMBER\_lexConcept\_2, TRAIN--TIME--OF--ESTIMATED--ARRIVAL\_lexConcept, TRAIN--TRIP\_lexConcept, TRAIN-KM\_lexConcept, TRAIN-TO-TRACK--TRANSMISSION\_lexConcept, TRAINING--CENTRE\_lexConcept, TRAINSET\_lexConcept, TRAIN\_lexConcept, TRAIN\_lexConcept\_2, TRAIN\_lexConcept\_3, TRAIN\_lexConcept\_4, TRAIN\_lexConcept\_5, TRAIN\_lexConcept\_6, TRAIN\_lexConcept\_7, TRAM-TRAIN\_lexConcept, TRAM-TRAIN\_lexConcept\_2, TRANS-EUROPEAN--NETWORK\_lexConcept, TRANS-EUROPEAN--RAIL--NETWORK\_lexConcept, TRANSHIPMENT\_lexConcept, TRANSITION--BUFFER\_lexConcept, TRANSITIONS\_lexConcept, TRANSIT\_lexConcept, TRANSMISSION--CONTROL--PROTOCOL\_INTERNET--PROTOCOL\_lexConcept, TRANSMISSION--CONTROL--PROTOCOL\_lexConcept, TRANSMISSION--MODE--TABLE\_lexConcept, TRANSPONDER\_lexConcept, TRANSPORT--CONNECTION--ENDPOINT--IDENTIFIER\_lexConcept, TRANSPORT--CONNECTION\_lexConcept, TRANSPORT--CONTRACT\_lexConcept, TRANSPORT--KEY\_lexConcept, TRANSPORT--MODE\_lexConcept, TRANSPORT--PROTOCOL--CLASS--2\_lexConcept, TRANSPORT--PROTOCOL--DATA--UNIT\_lexConcept, TRANSPORT--PROTOCOL\_lexConcept, TRANSPORT--SERVICE--ACCESS--POINT\_lexConcept, TRANSPORT--SERVICE--DATA--UNIT\_lexConcept, TRANSPORT--SERVICE--PROVIDER\_lexConcept, TRANSPORT--SERVICE\_lexConcept, TRANSPORT--SERVICE\_lexConcept\_2, TRD-----TRAIN--DATA\_lexConcept\_2, TRESPASSER\_lexConcept, TRIP--MODE\_lexConcept, TRIP--PLAN\_lexConcept, TRIPLE-KEY\_lexConcept, TS--%3D--TICKETING--SYSTEM--TO--BE--PROVIDED--BY--CENTRAL--INSTANCE--TO--ALLOW--INFORMATION--O\_lexConcept, TTD-----TRACKSIDE--TRAIN--DETECTION\_lexConcept\_2, TWO-PHASE--COMMIT\_lexConcept, TYPE--OF--OPERATION\_lexConcept, TYPE\_lexConcept, UNAUTHORISED--DIRECTION--MOVEMENT--PROTECTION\_lexConcept, UNAUTHORISED--MOVEMENT\_lexConcept, UNCOMMISSIONED--AREA\_lexConcept, UNDER-READING--AMOUNT\_lexConcept, UNFILLER\_lexConcept, UNFITTED--AREA\_lexConcept, UNFITTED--MODE\_lexConcept, UNGUIDED--LENGTH--OF--AN--OBTUSE--CROSSING\_lexConcept, UNGUIDED--LENGTH--OF--AN--OBTUSE--CROSSING\_lexConcept\_2, UNIFE--ETCS--WORKING--GROUP\_lexConcept, UNION--INTERNATIONALE--DES--CHEMINS--DE--FER\_lexConcept, UNION--RAIL--SYSTEM\_lexConcept, UNION--RAIL--SYSTEM\_lexConcept\_2, UNISIG-----UNION--INDUSTRY--OF--SIGNALLING\_lexConcept\_2, UNIT--CAPACITY--USED\_lexConcept, UNIT--LOAD\_lexConcept, UNIT--TRAIN\_lexConcept, UNIT\_lexConcept, UNIT\_lexConcept\_2, UNIT\_lexConcept\_3, UNIVERSAL--TIME--CO-ORDINATED\_lexConcept, UNLOADER\_lexConcept, UNNUMBERED--ACKNOWLEDGE\_lexConcept, UNNUMBERED--INFORMATION--HDLC--FRAME\_lexConcept, UNPROTECTED--WRONG--SIDE--FAILURE\_lexConcept, UPGRADE--OF--THE--RAILWAY--INFRASTRUCTURE\_lexConcept, UPGRADING\_lexConcept, URBAN--AND--SUBURBAN--SERVICES\_lexConcept, USABLE--LENGTH--OF--A--PLATFORM\_lexConcept, USABLE--LENGTH--OF--A--PLATFORM\_lexConcept\_2, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION---IF--NOT--PROVIDED--A--DEFAULT--VALUE--WILL--BE--USED\_lexConcept, USE--OF--THIS--PARAMETER--IS--A--USER--OPTION\_lexConcept, VALIDATION\_lexConcept, VALIDATOR\_lexConcept, VAN\_lexConcept, VARIABLE\_lexConcept, VB\_lexConcept, VEHICLE--IN--OPERATION\_lexConcept, VEHICLE\_lexConcept, VEHICLE\_lexConcept\_2, VERIFICATION--AND--VALIDATION\_lexConcept, VERIFICATION\_lexConcept, VERIFIER\_lexConcept, VERTICALLY--INTEGRATED--UNDERTAKING\_lexConcept, VIABLE--ALTERNATIVE\_lexConcept, VIRTUAL--BALISE--COVER\_lexConcept, VITAL\_lexConcept, VLAN-----VIRTUAL--LOCAL--AREA--NETWORK\_lexConcept\_2, VM1+----------\_lexConcept, WAGON--KEEPERS\_lexConcept, WAGON--LOAD\_lexConcept, WAGON\_lexConcept, WARNING--SUPERVISION--LIMIT\_lexConcept, WARNING\_lexConcept, WAYBILL\_lexConcept, WHEELSLIDE\_lexConcept, WHEELSLIP\_lexConcept, WORK--PASSENGER\_lexConcept, WORKING--TIMETABLE\_lexConcept, WRONG--SIDE--FAILURE\_lexConcept, WRONG--SIDE--SIGNALLING--FAILURE\_lexConcept

### 290 ontolex:LexicalConcept MODIFIED from lex\_sp-defs-240306:

ACCIDENT\_lexConcept, ADVANCED--SAFE--TRAIN--POSITIONING--ASTP\_lexConcept, ALLOCATION--AREA\_lexConcept, ANUNCIO--DE--SENALES--Y--FRENADO--AUTOMATICO\_lexConcept, APPLICATION--EXECUTION--ENVIRONMENT\_lexConcept, APPLICATION--LAYER\_lexConcept, APPLICATION\_lexConcept, ARCHITECTURAL--CONCEPT\_lexConcept, AREA--CONTROLLER--THE--AREA--CONTROLLER--MANAGES--AREAS--FOR--THE--VIEW\_lexConcept, AUTHENTICATION\_lexConcept, AUTOMATIC--TRAIN--OPERATION\_lexConcept\_2, AVAILABILITY--%3COF--A--PRODUCT%3E\_lexConcept, AVAILABILITY\_lexConcept, BACKWARDS--COMPATIBILITY\_lexConcept, BIOMETRIC--READER--DEVICE--THAT--READS--THE--IDENTITY--OF--A--PERSON--BY--COMPARING--SOME--AT\_lexConcept, BUILDING--BLOCK--CONFIGURATION\_lexConcept, BUILDING--BLOCK\_lexConcept, BUILDING--BLOCK\_lexConcept\_2, BUILDING--STRATEGY\_lexConcept, BUTTON--A--HARD--KEY--ALLOCATED--TO--A--DEDICATED--SYSTEM--ON--A--CAB---IT\_S--DESIGNED--WITH--A\_lexConcept, BUZZER--ELECTRICAL--DEVICE--THAT--MAKES--A--BUZZING--NOISE--AND--IS--USED--TO--PROVIDE--AN--AU\_lexConcept, CAPACITY--WASTE--MEANS\_lexConcept, CAPACITY-FRIENDLY--BEHAVIOUR--MEANS\_lexConcept, CBM\_lexConcept, CCF\_lexConcept, CCS--DEPLOYMENT\_lexConcept, CCS--FEATURE\_lexConcept, CCS\_TMS--DATA--MODEL\_lexConcept, CI--%3D--CENTRAL--INSTANCE--ECM--1--AND--VEHICLE--KEEPER--ARE--REGISTERED--IN--EVR--FDFTO--TC\_lexConcept, CLEAN--CODE--HAS--AN--IMPORTANT--IMPLICATION--OF--THE--PROJECT\_S--SUCCESS--AS--CLEAN--CODE--I\_lexConcept, COMMON--INSTANCE\_lexConcept, COMMON--STANDARD--PROPERTIES--OF--WORKITEMS\_lexConcept, COMPARTMENT\_lexConcept, COMPONENT\_lexConcept, CONCEPTUAL--GLOSSARY\_lexConcept, CONDITION--MONITORING--%3COF--AN--ITEM%3E\_lexConcept, CONFIDENTIALITY\_lexConcept, CONFIGURATION--DATA\_lexConcept, CONFIGURATION--ITEM\_lexConcept, CONFIGURATION--MANAGEMENT--PROCESS\_lexConcept, CONFIGURATION--MANAGEMENT\_lexConcept, CONFIGURATION\_lexConcept, CONSOLIDATED--GLOSSARY\_lexConcept, CONSTRAINT\_lexConcept, CONTROL-COMMAND--AND--SIGNALLING\_lexConcept, CONTROLLER--UNIT--THE--CONTROLLER--UNIT--IS--A--HARDWARE--COMPONENT--WHICH--EMBEDS--LOGICAL\_lexConcept, CORRECTIVE--MAINTENANCE\_lexConcept, CROSS-ACCEPTANCE\_lexConcept, CSM-ALSP\_lexConcept, CUSTOMER\_lexConcept, DANGER--ZONE\_lexConcept, DATA--MODEL--LAYER\_lexConcept, DEFINITION\_lexConcept\_2, DELIVERABLE\_lexConcept, DESK--AREA--DESK--AREA--IS--A--LOCATION--ATTRIBUTE--LEFT--CENTER---ASSOCIATED--TO--HMI\_lexConcept, DESK--DISPLAY--AREA--A--ZONE--DISPLAYING--A--PIECE--OF--VISUAL--INFORMATION--OF--PARTICULAR\_lexConcept, DESK--INSIDE--A--CAB--THE--SET--OF--OPERATING--CONTROLS%2A--WHICH--IS--DEDICATED--TO--PREFERR\_lexConcept, DEVELOPMENT--TASK\_lexConcept, DEVICE\_lexConcept, DIAGNOSTICS\_lexConcept, DISPLAY--PANEL--GLASS--LCD--SHOWING--PIXELS--WITHOUT--CONTROLLER\_lexConcept, ENGAGED--AREA\_lexConcept, ENGINEERING--DATA\_lexConcept, ENGINEERING--DATA\_lexConcept\_2, ENGINEERING--INPUT--DATA\_lexConcept, ENTERPRISE--SHARED--SERVICES\_lexConcept, ESSENTIAL--FUNCTION\_lexConcept, ESSENTIAL--FUNCTION\_lexConcept\_2, EU-RAILGOVERNING--BOARD\_lexConcept, EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept, EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_2, EXTENDED--VIEW--VIEW--DISPLAYED--ON--MORE--THAN--ONE--DISPLAY--PANEL\_lexConcept, EXTERNAL--BUTTON--A--BUTTON--WHICH--IS--NOT--DIRECTLY--MANAGED--BY--TDS\_lexConcept, FAIL-SAFE\_lexConcept, FAIL-SAFE\_lexConcept\_2, FAILURE--CAUSE\_lexConcept, FAILURE--MODE\_lexConcept, FAILURE--RATE--\_821-12-21\_lexConcept, FAILURE--RATE\_lexConcept, FAILURE--RATE\_lexConcept\_2, FAILURE\_lexConcept, FAULT--%3COF--AN--ITEM%3E\_lexConcept, FAULT--CORRECTION--TIME\_lexConcept, FAULT--DETECTION--TIME\_lexConcept, FAULT--LOCALIZATION--TIME\_lexConcept, FAULT--TREE\_lexConcept, FEATURE--SUMMARY\_lexConcept, FIS-----FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept, FMECA\_lexConcept, FMECA\_lexConcept\_2, FOLLOW--A--TRACE\_lexConcept, FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept, FS-----FULLING--SUPERVISION--MODE--IN--ETCS\_lexConcept, FTA\_lexConcept, FULL--BACKWARDS--COMPATIBILITY\_lexConcept, FUNCTION--CHECKOUT--TIME\_lexConcept, FUNCTIONAL--CHAIN\_lexConcept, FUNCTIONAL--TEAM\_lexConcept, FUNCTION\_lexConcept, FUNKTIONAL--TEAM\_lexConcept, GENERIC--WORKFLOW--TYPES\_lexConcept, GROUND--FOOTPRINT\_lexConcept, HARD--KEY--PHYSICAL--KEY--NOT--PART--OF--VIEW---THIS--KEY--CAN--ALSO--HAVE--A--TEXT--LABEL--OR--S\_lexConcept, HARDWARE--ABSTRACTION--INTERFACE\_lexConcept, HAZARD\_lexConcept, HAZARD\_lexConcept\_2, HAZOP\_lexConcept, HFI--ACTIVITIES\_lexConcept, HMI--COMPONENT\_lexConcept, HMI--ELEMENT--AN--HMI--ELEMENT--IS--A--PHYSICAL--COMPONENT--THAT--INTERACTS--WITH--THE--DRIVE\_lexConcept, HUMAN--FACTORS\_lexConcept, HUMAN-SYSTEM--INTEGRATION\_lexConcept, IDENTITY\_lexConcept, IMPERSONATION\_lexConcept, INCIDENT\_lexConcept, INFRASTRUCTURE--MANAGER\_lexConcept\_2, INFRASTRUCTURE\_lexConcept, INPUT--DOCUMENTS\_lexConcept, INTEGRATION--TASK\_lexConcept, INTEGRITY\_lexConcept, INTERCHANGEABILITY\_lexConcept, INTERFACE\_lexConcept, INTERLOCKING\_lexConcept, INTERLOCKING\_lexConcept\_2, INTERNAL--BUTTON--THE--INTERNAL--BUTTON--IS--A--BUTTON--WHICH--IS--MANAGED--DIRECTLY--BY--TDS\_lexConcept, INTERNAL--PUBLICATION\_lexConcept, INTEROPERABILITY--CONSTITUENTS\_lexConcept, INTEROPERABILITY\_lexConcept, INTEROPERABILITY\_lexConcept\_2, KEY--CONTROLLER--CONTROLLER--WHICH--MANAGES--STATES--AND--FAILURES--OF--HARD--KEYS--INTERN\_lexConcept, LATERAL--KEY--HARD--KEY--LOCATED--CLOSE--TO--A--DISPLAY--AREA--ALLOWING--SOFT--KEY--TECHNOLOG\_lexConcept, LAYOUT--CONTROLLER--THE--LAYOUT--CONTROLLER--MANAGES--THE--LAYOUT--FOR--AN--AREA\_lexConcept, LAYOUT--ELEMENT--CONTROLLER--THE--LAYOUT--ELEMENT--CONTROLLER--MANAGESLAYOUT--ELEMENTS--O\_lexConcept, LAYOUT--ENGINE--THE--LAYOUT--ENGINE--IS--A--GENERIC--PIECE--OF--SOFTWARE--ABLE--TO--GENERATE\_lexConcept, LAYOUT--LAYOUT--IS--A--LIST--OF--LAYOUT--ELEMENTS--WHICH--IS--DISPLAYED--IN--AN--AREA\_lexConcept, LEXICAL--GLOSSARY\_lexConcept, LOGICAL--ACTOR\_lexConcept, LOGICAL--COMPONENT\_lexConcept\_2, LOGICAL--FUNCTION\_lexConcept, LOGISTIC--DELAY\_lexConcept, LOUDSPEAKER--DEVICE--THAT--CONVERTS--AN--ELECTRICAL--AUDIO--SIGNAL--INTO--A--CORRESPONDING\_lexConcept, MACMT\_lexConcept, MAD\_lexConcept, MAINTAINABILITY--%3COF--AN--ITEM%3E\_lexConcept, MAINTAINABILITY\_lexConcept, MANAGEMENT--BY--TRACEABILITY--KANBAN--BASED\_lexConcept, MANUFACTURER\_lexConcept, MDBF\_lexConcept, MDBSF\_lexConcept, MEAN--TIME--BETWEEN--FAILURE\_lexConcept, MEASURE--OF--EFFECTIVENESS\_lexConcept, METHODOLOGY\_lexConcept\_2, METHOD\_lexConcept, MFDT\_lexConcept, MICROPHONE--CONTROLLER--THE--MICROPHONE--CONTROLLER--MANAGES--STATES--AND--SIGNALS--OF--MI\_lexConcept, MICROPHONE--DEVICE--THAT--TRANSLATES--SOUND--VIBRATIONS--FROM--THE--AIR--INTO--ELECTRONIC\_lexConcept, MLD\_lexConcept, MODE--TRANSITION\_lexConcept, MODEL--SYNCHRONISATION\_lexConcept, MODE\_lexConcept, MODULE\_lexConcept, MOTBF\_lexConcept, MOVEMENT--PROTECTION--AREA\_lexConcept, MOVING--BLOCK\_lexConcept, MRT\_lexConcept, MTBF\_lexConcept, MTBSF\_lexConcept, MTD\_lexConcept, MTTFF\_lexConcept, MTTF\_lexConcept, MTTR\_lexConcept, NATIONAL--IMPLEMENATION--PLAN\_lexConcept, NATIONAL--SAFETY--AUTHORITY\_lexConcept, NETWORK--COMPONENT\_lexConcept, NON-FUNCTIONAL--REQUIREMENTS\_lexConcept, NON-REPUDIATION\_lexConcept, NOTIF-IT\_lexConcept, OBJECTIVES\_lexConcept, ODOMETRY\_lexConcept, OPERATING--TIME--TO--FAILURE--%3COF--AN--ITEM%3E\_lexConcept, OPERATING--TIME\_lexConcept, OPERATIONAL--CAPABILITY\_lexConcept\_2, OPERATIONAL--ENTITY\_ACTOR\_lexConcept\_2, OPERATIONAL--HARMONIZATION\_lexConcept, OPERATIONAL--HAZARD\_lexConcept, OPERATIONAL--MISSION--DEPRECATED\_lexConcept, OPERATIONAL--MISSION\_lexConcept, OPERATIONAL--SCENARIO\_lexConcept, ORS--OPERATIONAL--REQUIREMENT--SPECIFICATION\_lexConcept, PERFORMANCE--%3C--OF--AN--ITEM--%3E\_lexConcept, PFH\_lexConcept, PFH\_lexConcept\_2, PFH\_lexConcept\_3, PHYSICAL--LINK\_lexConcept, PHYSICAL--PORT\_lexConcept, PLATEAU\_lexConcept, PLATEAU\_lexConcept\_2, PROCESS--TASK\_lexConcept, RADIO--BLOCK--CENTRE\_lexConcept, RBD\_lexConcept, READER--CONTROLLER--THE--READER--CONTROLLER--MANAGES--STATES--AND--FAILURES--OF--THE--BIOME\_lexConcept, REFERENCE--LOCATION\_lexConcept, RELIABILITY--%3COF--AN--ITEM%3E\_lexConcept, REQUIREMENT--STATEMENT\_lexConcept, REUSABILITY\_lexConcept, RFID--READER--RADIO--FREQUENCY--IDENTIFICATION--RFID--REFERS--TO--A--WIRELESS--SYSTEM--CO\_lexConcept, RISK--%3COF--A--HAZARD%3E\_lexConcept, RISK--ANALYSIS\_lexConcept, RISK--ASSESSMENT\_lexConcept, RISK--EVALUATION\_lexConcept, RISK\_lexConcept, ROLL--AWAY\_lexConcept, SAFE--STATE--\_821-12-49\_lexConcept, SAFE--STATE\_lexConcept, SAFE--STATE\_lexConcept\_2, SAFETY--ENVIRONMENT\_lexConcept, SAFETY--FRAMEWORK\_lexConcept, SCENARIO\_lexConcept, SECRAC\_lexConcept, SECURE--COMPONENT\_lexConcept, SEMP--REQUIREMENTS--TYPES\_lexConcept, SERIOUS--ACCIDENT\_lexConcept, SIL2--HAZARD--MITIGATION\_lexConcept, SIL4--SAFETY--INVARIANT\_lexConcept, SINGLE--EUROPEAN--RAILWAY--AREA-----COMMAND--CONTROL--AND--SIGNALING\_lexConcept, SITUATION\_lexConcept, SOFT--KEY--CONTEXT-DEPENDENT--KEY--WHICH--CONSISTS--OF--A--HARD--KEY--WITH--AN--ASSOCIATED--L\_lexConcept, SPECIFICATION--TASK\_lexConcept, SRD\_lexConcept, STAKEHOLDER--NEEDS\_lexConcept, STAKEHOLDER\_lexConcept, STANDARD\_ROUTINE--OPERATION\_lexConcept, STPA\_lexConcept, SUB-SYSTEM--SOMETIMES--CALLED--\_BUILDING--BLOCK\_lexConcept, SUBSYSTEM\_lexConcept, SWITCH--PHYSICAL--COMPONENT--WHICH--ALLOWS--A--SELECTION--OF--2--TO--N--STATES--AND--KEEPS--TH\_lexConcept, SWITCH\_lexConcept, SWITCH\_lexConcept\_2, SWITCH\_lexConcept\_3, SWITCH\_lexConcept\_4, SYSTEM--ACTOR\_lexConcept, SYSTEM--AND--INNOVATION--PROGRAMME--BOARD\_lexConcept, SYSTEM--CAPABILITY\_lexConcept, SYSTEM--CAPABILITY\_lexConcept\_2, SYSTEM--DEVELOPMENT--LIFE--CYCLE\_lexConcept, SYSTEM--FUNCTION\_lexConcept, SYSTEM--LEVELS\_lexConcept, SYSTEM--OF--SYSTEMS\_lexConcept, SYSTEM--PILLAR--CORE--GROUP\_lexConcept, SYSTEM--PILLAR--DELIVERABLES--\_OUTPUT--DOCUMENTS\_lexConcept, SYSTEM--PILLAR--STEERING--GROUP\_lexConcept, SYSTEM--PILLAR--UNIT--CHAIRS--THE--SYSTEM--PILLAR--CORE--GROUP\_lexConcept, SYSTEM--REQUIREMENTS\_lexConcept, SYSTEM--UNDER--CONSIDERATION\_lexConcept, SYSTEM\_lexConcept, SYSTEM\_lexConcept\_2, TAILORING--OF--REQUIREMENT--BREAKDOWN\_lexConcept, TARGET--PICTURE\_lexConcept, TASK\_lexConcept, TECHNICAL--DELAY\_lexConcept, TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexConcept, TEMPORARY--SHUNTING--AREA--TSHA--A--TEMPORARY--SHUNTING--AREA--IS--AN--INTERLOCKED--AREA\_lexConcept, TERMINAL--OPERATOR\_lexConcept, TESTABILITY\_lexConcept, THE--\_TRACE\_--FOR--A--WORK--ITEM--CHAIN\_TREE\_GRAPH\_lexConcept, TLS\_lexConcept, TOUCH--CONTROLLER--CONTROLLER--WHICH--MANAGES--THE--STATES--AND--FAILURES--OF--A--TOUCH--PAN\_lexConcept, TRACK--FOOTPRINT\_lexConcept, TRADE-SPACE--FACTOR\_lexConcept, TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_2, TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_3, TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_4, TRAIN--DISPLAY--SYSTEM--CONTROLLER--THE--TDS--CONTROLLER--INTERACTS--WITH--SYSTEM--CCS--T\_lexConcept, TRAIN--DISPLAY--SYSTEM--TDS--THE--TRAIN--DISPLAY--SYSTEM--IS--THE--TRAIN--CAB--DISPLAY--SYS\_lexConcept, TRAIN--RUNNING--NUMBER\_lexConcept, TRAIN-CENTRIC--TRACK--OCCUPANCY\_lexConcept, UPLINKING\_lexConcept, VIEW--AGGREGATION--OF--AREAS--REQUIRED--FOR--SYSTEMS--CCS--TCMS--CVR------A--VIEW--CAN--R\_lexConcept, VIEW--CONTROLLER--THE--VIEW--CONTROLLER--AGGREGATES--THE--VIEW--THE--OUTPUT--DEVICES--AND\_lexConcept, VIRTUAL--COMPUTING--ELEMENT\_lexConcept, VIRTUALISATION--ENVIRONMENT\_lexConcept, WIRELESS--COMMUNICATION\_lexConcept, WIRELESS--COMPONENT\_lexConcept, WORK--ITEM--EDITOR\_lexConcept, WORK--ITEM\_lexConcept, WORKFLOW--AND--WORKFLOW--RULES\_lexConcept, WORKFLOW--PRIORITISATION--STRATEGY--TO--BE--DECIDED--PER--AREA\_lexConcept, WORKFLOW--STEP--ON--STEP--IN--A--WORKITEM--TRACE\_lexConcept, WORKSTEP--\_WORKITEM--CHECK\_lexConcept

# Modified Entities

## lexinfo:AbbreviatedForm entities

### ontorail:lexinfo:AbbreviatedForm 3 cosmetic changes have been skipped

### ontorail:lexinfo:AbbreviatedForm lex\_sp-defs-240619:CCS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :CONTROL-COMMAND--AND--SIGNALLING\_lexForm\_2, -- :CONTROL-COMMAND--AND--SIGNALLING\_lexForm\_3

### ontorail:lexinfo:AbbreviatedForm lex\_sp-defs-240619:COM modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => ++ :EUROPEAN--COMMISSION\_lexForm\_2, -- :EUROPEAN--COMMISSION\_lexForm\_4

### ontorail:lexinfo:AbbreviatedForm lex\_sp-defs-240619:ERA modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexForm\_2, -- :EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexForm\_3

### ontorail:lexinfo:AbbreviatedForm lex\_sp-defs-240619:HTTP modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :HYPERTEXT--TRANSFER--PROTOCOL\_lexForm\_2, -- :HYPERTEXT--TRANSFER--PROTOCOL\_lexForm\_3

### ontorail:lexinfo:AbbreviatedForm lex\_sp-defs-240619:TAF modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexForm\_2, -- :TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexForm\_3

### ontorail:lexinfo:AbbreviatedForm lex\_sp-defs-240619:TSI modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_2, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_3, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_4, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_5, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_6, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_7

### ontorail:lexinfo:AbbreviatedForm lex\_sp-defs-240619:TSI modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm\_2, -- :TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm\_3

 == rdfs:label => "TSI", -- "TSIs"

## ontolex:LexicalEntry entities

### ontorail:ontolex:LexicalEntry 39 cosmetic changes have been skipped

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:ATO modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :AUTOMATIC--TRAIN--OPERATION\_lexForm\_2, :AUTOMATIC--TRAIN--OPERATION\_lexForm\_3, -- :AUTOMATIC--TRAIN--OPERATION\_lexForm\_4

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:CCS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :CONTROL-COMMAND--AND--SIGNALLING\_lexForm\_2, -- :CONTROL-COMMAND--AND--SIGNALLING\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:CMS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :CAPACITY--MANAGEMENT--SYSTEM\_lexForm\_2, -- :CAPACITY--MANAGEMENT--SYSTEM\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:COM modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => ++ :EUROPEAN--COMMISSION\_lexForm\_2, -- :EUROPEAN--COMMISSION\_lexForm\_4

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:ERA modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexForm\_2, -- :EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:ERTMS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_2, -- :EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_3, -- :EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_4

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:ETCS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexForm\_2, :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexForm\_3, -- :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexForm\_4, -- :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexForm\_5

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:ETSI modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexForm\_2, -- :EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:FIS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :FUNCTIONAL--INTERFACE--SPECIFICATION\_lexForm\_2, -- :FUNCTIONAL--INTERFACE--SPECIFICATION\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:FRMCS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexForm\_2, :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexForm\_3, -- :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexForm\_4, -- :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexForm\_5

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:FRS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexForm\_2, -- :FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:HTTP modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :HYPERTEXT--TRANSFER--PROTOCOL\_lexForm\_2, -- :HYPERTEXT--TRANSFER--PROTOCOL\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:IEC modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexForm\_2, -- :INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:IM modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :INFRASTRUCTURE--MANAGER\_lexForm\_2, :INFRASTRUCTURE--MANAGER\_lexForm\_3, -- :INFRASTRUCTURE--MANAGER\_lexForm\_4, -- :INFRASTRUCTURE--MANAGER\_lexForm\_5, -- :INFRASTRUCTURE--MANAGER\_lexForm\_6, -- :INFRASTRUCTURE--MANAGER\_lexForm\_7

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:MTBF modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :MEAN--TIME--BETWEEN--FAILURE\_lexForm\_2, -- :MEAN--TIME--BETWEEN--FAILURE\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:RBC modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :RADIO--BLOCK--CENTRE\_lexForm\_2, :RADIO--BLOCK--CENTRE\_lexForm\_3, -- :RADIO--BLOCK--CENTRE\_lexForm\_4

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:RU modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :RAILWAY--UNDERTAKING\_lexForm\_2, -- :RAILWAY--UNDERTAKING\_lexForm\_3, -- :RAILWAY--UNDERTAKING\_lexForm\_4, -- :RAILWAY--UNDERTAKING\_lexForm\_5, -- :RAILWAY--UNDERTAKING\_lexForm\_6

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:SRS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :SYSTEM--REQUIREMENTS--SPECIFICATION\_lexForm\_2, -- :SYSTEM--REQUIREMENTS--SPECIFICATION\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:"System Actor" modifications from lex\_sp-defs-240306:

 == rdfs:label => ++ "System Actor", -- "(System) Actor"

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:TAF modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexForm\_2, -- :TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexForm\_3

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:TMS modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_2, :TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_3, :TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_4, :TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_5, -- :TRAFFIC--MANAGEMENT--SYSTEM\_lexForm\_6

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:TSI modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_2, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_3, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_4, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_5, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_6, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexForm\_7

### ontorail:ontolex:LexicalEntry lex\_sp-defs-240619:TSI modifications from lex\_sp-defs-240306:

 == ontolex:canonicalForm => :TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm\_2, -- :TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm\_3

 == rdfs:label => "TSI", -- "TSIs"

## ontolex:Form entities

### ontorail:ontolex:Form 34 cosmetic changes have been skipped

### ontorail:ontolex:Form lex\_sp-defs-240619:EUROPEAN--COMMISSION\_lexForm\_2 modifications from lex\_sp-defs-240306:

 == ontolex:writtenRep => ++ "COM", -- "EC"

### ontorail:ontolex:Form lex\_sp-defs-240619:SYSTEM--ACTOR\_lexForm modifications from lex\_sp-defs-240306:

 == ontolex:writtenRep => ++ "System Actor", -- "(System) Actor"

### ontorail:ontolex:Form lex\_sp-defs-240619:TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexForm\_2 modifications from lex\_sp-defs-240306:

 == ontolex:writtenRep => ++ "TSI", -- "TSIs"

## ontolex:LexicalSense entities

### ontorail:ontolex:LexicalSense 0 cosmetic changes have been skipped

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ACCIDENT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-346", -- "SPLI-256", -- "SPLI-288"

 == ontolex:isLexicalizedSenseOf => :ACCIDENT\_lexConcept, -- :ACCIDENT\_lexConcept\_2, -- :ACCIDENT\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ADM-----AUTOMATIC--DRIVING--MODULE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-656", -- "SPT2TRAIN-1454"

 == ontolex:isLexicalizedSenseOf => :ADM-----AUTOMATIC--DRIVING--MODULE\_lexConcept, -- :ADM-----AUTOMATIC--DRIVING--MODULE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:APM-----AUTOMATIC--PROCESSING--MODULE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-654", -- "SPT2TRAIN-1455"

 == ontolex:isLexicalizedSenseOf => :APM-----AUTOMATIC--PROCESSING--MODULE\_lexConcept, -- :APM-----AUTOMATIC--PROCESSING--MODULE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ATO-----AUTOMATIC--TRAIN--OPERATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-625", -- "SPT2TRAIN-1456"

 == ontolex:isLexicalizedSenseOf => :ATO-----AUTOMATIC--TRAIN--OPERATION\_lexConcept, -- :ATO-----AUTOMATIC--TRAIN--OPERATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:AUTHENTICATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-1703", -- "SPLI-755"

 == ontolex:isLexicalizedSenseOf => :AUTHENTICATION\_lexConcept, -- :AUTHENTICATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:AUTOMATIC--TRAIN--OPERATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1295", "SPT2MIG-845", -- "SPLI-763"

 == ontolex:isLexicalizedSenseOf => :AUTOMATIC--TRAIN--OPERATION\_lexConcept, :AUTOMATIC--TRAIN--OPERATION\_lexConcept\_2, -- :AUTOMATIC--TRAIN--OPERATION\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:AVAILABILITY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-7298", -- "SPLI-425", -- "SPLI-759"

 == ontolex:isLexicalizedSenseOf => :AVAILABILITY\_lexConcept, -- :AVAILABILITY\_lexConcept\_2, -- :AVAILABILITY\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:C-DAS-----CONNECTED--DRIVER--ADVISORY--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-653", -- "SPT2TRAIN-1458"

 == ontolex:isLexicalizedSenseOf => :C-DAS-----CONNECTED--DRIVER--ADVISORY--SYSTEM\_lexConcept, -- :C-DAS-----CONNECTED--DRIVER--ADVISORY--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CAPACITY--MANAGEMENT--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1298", -- "SPT3TMS-10170"

 == ontolex:isLexicalizedSenseOf => :CAPACITY--MANAGEMENT--SYSTEM\_lexConcept, -- :CAPACITY--MANAGEMENT--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CMD-----COLD--MOVEMENT--DETECTOR\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-621", -- "SPT2TRAIN-1459"

 == ontolex:isLexicalizedSenseOf => :CMD-----COLD--MOVEMENT--DETECTOR\_lexConcept, -- :CMD-----COLD--MOVEMENT--DETECTOR\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:COMPARTMENT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2CE-1238", "SPT2CE-1274", -- "SPLI-716"

 == ontolex:isLexicalizedSenseOf => :COMPARTMENT\_lexConcept, :COMPARTMENT\_lexConcept\_2, -- :COMPARTMENT\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CONFIGURATION--MANAGEMENT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TS-1833", -- "SPLI-789"

 == ontolex:isLexicalizedSenseOf => :CONFIGURATION--MANAGEMENT\_lexConcept, -- :CONFIGURATION--MANAGEMENT\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CONFIGURATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-2048", -- "SPLI-788"

 == ontolex:isLexicalizedSenseOf => :CONFIGURATION\_lexConcept, -- :CONFIGURATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CONSTRAINT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-3736", ++ "SPT2OD-6720"

 == ontolex:isLexicalizedSenseOf => :CONSTRAINT\_lexConcept, ++ :CONSTRAINT\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CONTROL-COMMAND--AND--SIGNALLING\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-83", -- "SPLI-293"

 == ontolex:isLexicalizedSenseOf => :CONTROL-COMMAND--AND--SIGNALLING\_lexConcept, -- :CONTROL-COMMAND--AND--SIGNALLING\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CROSS-ACCEPTANCE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPT2ARC-2410", -- "SPLI-795"

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CUSTOMER\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-4699", -- "SPLI-435", -- "SPLI-559"

 == ontolex:isLexicalizedSenseOf => :CUSTOMER\_lexConcept, -- :CUSTOMER\_lexConcept\_2, -- :CUSTOMER\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:CVR-OB-----CABIN--VOICE--RADIO--ON-BOARD\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-655", -- "SPT2TRAIN-1460"

 == ontolex:isLexicalizedSenseOf => :CVR-OB-----CABIN--VOICE--RADIO--ON-BOARD\_lexConcept, -- :CVR-OB-----CABIN--VOICE--RADIO--ON-BOARD\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:DAC-----DIGITAL--AUTOMATIC--COUPLING\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-626", -- "SPT2TRAIN-1461"

 == ontolex:isLexicalizedSenseOf => :DAC-----DIGITAL--AUTOMATIC--COUPLING\_lexConcept, -- :DAC-----DIGITAL--AUTOMATIC--COUPLING\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:DAS-----DRIVER--ADVISORY--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-652", -- "SPT2TRAIN-1462"

 == ontolex:isLexicalizedSenseOf => :DAS-----DRIVER--ADVISORY--SYSTEM\_lexConcept, -- :DAS-----DRIVER--ADVISORY--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:DIAGNOSTICS\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TS-48931", ++ "SPT2TS-49143"

 == ontolex:isLexicalizedSenseOf => :DIAGNOSTICS\_lexConcept, ++ :DIAGNOSTICS\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:DM-----DIGITAL--MAP\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-642", -- "SPT2TRAIN-1463"

 == ontolex:isLexicalizedSenseOf => :DM-----DIGITAL--MAP\_lexConcept, -- :DM-----DIGITAL--MAP\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:DMI-----DRIVER--MACHINE--INTERFACE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-630", -- "SPT2TRAIN-1464"

 == ontolex:isLexicalizedSenseOf => :DMI-----DRIVER--MACHINE--INTERFACE\_lexConcept, -- :DMI-----DRIVER--MACHINE--INTERFACE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EB-----EMERGENCY--BRAKE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-648", -- "SPT2TRAIN-1465"

 == ontolex:isLexicalizedSenseOf => :EB-----EMERGENCY--BRAKE\_lexConcept, -- :EB-----EMERGENCY--BRAKE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ECN-----ETHERNET--CONSIST--NETWORK\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-636", -- "SPT2TRAIN-1466"

 == ontolex:isLexicalizedSenseOf => :ECN-----ETHERNET--CONSIST--NETWORK\_lexConcept, -- :ECN-----ETHERNET--CONSIST--NETWORK\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ENGINEERING--DATA\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPT2TS-125754", "SPT2TS-1436", "SPT2TS-2030"

 == ontolex:isLexicalizedSenseOf => :ENGINEERING--DATA\_lexConcept, :ENGINEERING--DATA\_lexConcept\_2, ++ :ENGINEERING--DATA\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ENGINEERING--INPUT--DATA\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TS-124253", ++ "SPT2TS-125758"

 == ontolex:isLexicalizedSenseOf => :ENGINEERING--INPUT--DATA\_lexConcept, ++ :ENGINEERING--INPUT--DATA\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ERA-----EUROPEAN--RAILWAY--AGENCY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-608", -- "SPT2TRAIN-1467"

 == ontolex:isLexicalizedSenseOf => :ERA-----EUROPEAN--RAILWAY--AGENCY\_lexConcept, -- :ERA-----EUROPEAN--RAILWAY--AGENCY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ERG-----EURO--RADIO--GATEWAY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-809", -- "SPT2TRAIN-1468"

 == ontolex:isLexicalizedSenseOf => :ERG-----EURO--RADIO--GATEWAY\_lexConcept, -- :ERG-----EURO--RADIO--GATEWAY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ERTMS-----EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-607", -- "SPT2TRAIN-1471"

 == ontolex:isLexicalizedSenseOf => :ERTMS-----EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept, -- :ERTMS-----EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ETCS-----EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-609", -- "SPT2TRAIN-1470"

 == ontolex:isLexicalizedSenseOf => :ETCS-----EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept, -- :ETCS-----EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ETP-OB-----EUROPEAN--TRAIN--PROTECTION--ON-BOARD\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-650", -- "SPT2TRAIN-1469"

 == ontolex:isLexicalizedSenseOf => :ETP-OB-----EUROPEAN--TRAIN--PROTECTION--ON-BOARD\_lexConcept, -- :ETP-OB-----EUROPEAN--TRAIN--PROTECTION--ON-BOARD\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EUG-----ERTMS--USERS--GROUP\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-649", -- "SPT2TRAIN-1472"

 == ontolex:isLexicalizedSenseOf => :EUG-----ERTMS--USERS--GROUP\_lexConcept, -- :EUG-----ERTMS--USERS--GROUP\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EUROPEAN--COMMISSION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-88", -- "SPLI-568", -- "SPLI-841"

 == ontolex:isLexicalizedSenseOf => :EUROPEAN--COMMISSION\_lexConcept, -- :EUROPEAN--COMMISSION\_lexConcept\_2, -- :EUROPEAN--COMMISSION\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-104", -- "SPLI-310", -- "SPLI-829"

 == ontolex:isLexicalizedSenseOf => :EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept, -- :EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_2, -- :EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-109", -- "SPLI-847"

 == ontolex:isLexicalizedSenseOf => :EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexConcept, -- :EUROPEAN--TELECOMMUNICATIONS--STANDARDS--INSTITUTE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2MIG-822", "SPT2MIG-979", -- "SPLI-312", -- "SPLI-830"

 == ontolex:isLexicalizedSenseOf => :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept, :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_2, -- :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_3, -- :EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_4

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-101", -- "SPLI-314"

 == ontolex:isLexicalizedSenseOf => :EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexConcept, -- :EUROPEAN--UNION--AGENCY--FOR--RAILWAYS\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:EVC-----EUROPEAN--VITAL--COMPUTER\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-605", -- "SPT2TRAIN-1473"

 == ontolex:isLexicalizedSenseOf => :EVC-----EUROPEAN--VITAL--COMPUTER\_lexConcept, -- :EVC-----EUROPEAN--VITAL--COMPUTER\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FAIL-SAFE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-3439", "SPPRAMSS-4048", -- "SPLI-850"

 == ontolex:isLexicalizedSenseOf => :FAIL-SAFE\_lexConcept, :FAIL-SAFE\_lexConcept\_2, -- :FAIL-SAFE\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FAILURE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-4076", -- "SPLI-851"

 == ontolex:isLexicalizedSenseOf => :FAILURE\_lexConcept, -- :FAILURE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FAULT--DETECTION--TIME\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-4696", -- "SPLI-853"

 == ontolex:isLexicalizedSenseOf => :FAULT--DETECTION--TIME\_lexConcept, -- :FAULT--DETECTION--TIME\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FFFIS-----FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-606", -- "SPT2TRAIN-1475"

 == ontolex:isLexicalizedSenseOf => :FFFIS-----FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept, -- :FFFIS-----FORM-FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FIS-----FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2ARC-1285", ++ "SPT2OD-6830", "SPT2TRAIN-644", -- "SPT2TRAIN-1474"

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FORECAST\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1292", -- "SPLI-459"

 == ontolex:isLexicalizedSenseOf => :FORECAST\_lexConcept, -- :FORECAST\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FP-----FLAGSHIP--PROJECTS\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-661", -- "SPT2TRAIN-1476"

 == ontolex:isLexicalizedSenseOf => :FP-----FLAGSHIP--PROJECTS\_lexConcept, -- :FP-----FLAGSHIP--PROJECTS\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FRMCS-----FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-645", -- "SPT2TRAIN-1477"

 == ontolex:isLexicalizedSenseOf => :FRMCS-----FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept, -- :FRMCS-----FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FS-----FULLING--SUPERVISION--MODE--IN--ETCS\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-603", -- "SPT2TRAIN-1478"

 == ontolex:isLexicalizedSenseOf => :FS-----FULLING--SUPERVISION--MODE--IN--ETCS\_lexConcept, -- :FS-----FULLING--SUPERVISION--MODE--IN--ETCS\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FUNCTIONAL--APPORTIONMENT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2ARC-1014", ++ "SPT2TRAIN-2316"

 == ontolex:isLexicalizedSenseOf => :FUNCTIONAL--APPORTIONMENT\_lexConcept, ++ :FUNCTIONAL--APPORTIONMENT\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FUNCTIONAL--INTERFACE--SPECIFICATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-115", -- "SPLI-863"

 == ontolex:isLexicalizedSenseOf => :FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept, -- :FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-118", -- "SPLI-864"

 == ontolex:isLexicalizedSenseOf => :FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexConcept, -- :FUNCTIONAL--REQUIREMENTS--SPECIFICATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FUNCTION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-2598", -- "SPPR-2046"

 == dcterms:subject => :"Railway Infrastructure", <http://dbpedia.org/resource/Rail\_transport>, <https://en.wikipedia.org/wiki/Category:Rail\_infrastructure>, -- :"ARCADIA Method", -- <https://dbpedia.org/page/Arcadia\_(engineering)>, -- <https://en.wikipedia.org/wiki/Arcadia\_(engineering)>

 == ontolex:isLexicalizedSenseOf => :FUNCTION\_lexConcept, -- :FUNCTION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-117", "SPT2MIG-835", -- "SPLI-1161", -- "SPLI-865"

 == ontolex:isLexicalizedSenseOf => :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept, :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept\_2, -- :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept\_3, -- :FUTURE--RAILWAY--MOBILE--COMMUNICATION--SYSTEM\_lexConcept\_4

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:FVA-----FUNCTIONAL--VEHICLE--ADAPTER\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-604", -- "SPT2TRAIN-1479"

 == ontolex:isLexicalizedSenseOf => :FVA-----FUNCTIONAL--VEHICLE--ADAPTER\_lexConcept, -- :FVA-----FUNCTIONAL--VEHICLE--ADAPTER\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:GOA-----GRADE--OF--AUTOMATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-602", -- "SPT2TRAIN-1480"

 == ontolex:isLexicalizedSenseOf => :GOA-----GRADE--OF--AUTOMATION\_lexConcept, -- :GOA-----GRADE--OF--AUTOMATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:GSM-R-----GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-610", -- "SPT2TRAIN-1481"

 == ontolex:isLexicalizedSenseOf => :GSM-R-----GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexConcept, -- :GSM-R-----GLOBAL--SYSTEM--FOR--MOBILE--COMMUNICATIONS-----RAILWAYS\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:GW-----GATEWAY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-663", -- "SPT2TRAIN-1482"

 == ontolex:isLexicalizedSenseOf => :GW-----GATEWAY\_lexConcept, -- :GW-----GATEWAY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:HYPERTEXT--TRANSFER--PROTOCOL\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1312", -- "SPLI-467"

 == ontolex:isLexicalizedSenseOf => :HYPERTEXT--TRANSFER--PROTOCOL\_lexConcept, -- :HYPERTEXT--TRANSFER--PROTOCOL\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:IDENTITY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TS-52", -- "SPLI-1164"

 == ontolex:isLexicalizedSenseOf => :IDENTITY\_lexConcept, -- :IDENTITY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:INCIDENT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-344", -- "SPLI-269", -- "SPLI-322"

 == ontolex:isLexicalizedSenseOf => :INCIDENT\_lexConcept, -- :INCIDENT\_lexConcept\_2, -- :INCIDENT\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:INFRASTRUCTURE--MANAGER\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2MIG-825", "SPT2TRAIN-646", -- "SPLI-1400", -- "SPLI-158", -- "SPLI-180", -- "SPLI-226", -- "SPLI-270", -- "SPLI-324", -- "SPLI-468", -- "SPLI-581", -- "SPLI-686", -- "SPT2TRAIN-1483"

 == ontolex:isLexicalizedSenseOf => :INFRASTRUCTURE--MANAGER\_lexConcept, :INFRASTRUCTURE--MANAGER\_lexConcept\_2, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_10, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_11, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_12, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_3, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_4, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_5, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_6, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_7, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_8, -- :INFRASTRUCTURE--MANAGER\_lexConcept\_9

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:INFRASTRUCTURE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPT3TMS-13782", -- "SPLI-323"

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:INTERLOCKING\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2MIG-842", "SPT2TS-1820", -- "SPLI-878"

 == ontolex:isLexicalizedSenseOf => :INTERLOCKING\_lexConcept, :INTERLOCKING\_lexConcept\_2, -- :INTERLOCKING\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-121", -- "SPLI-1166"

 == ontolex:isLexicalizedSenseOf => :INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexConcept, -- :INTERNATIONAL--ELECTROTECHNICAL--COMMISSION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:INTEROPERABILITY--CONSTITUENTS\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPPRAMSS-8226", -- "SPLI-228", -- "SPLI-271", -- "SPLI-377", -- "SPLI-744"

 == ontolex:isLexicalizedSenseOf => :INTEROPERABILITY--CONSTITUENTS\_lexConcept, -- :INTEROPERABILITY--CONSTITUENTS\_lexConcept\_2, -- :INTEROPERABILITY--CONSTITUENTS\_lexConcept\_3, -- :INTEROPERABILITY--CONSTITUENTS\_lexConcept\_4

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:INTEROPERABILITY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2ARC-804", "SPT2MIG-827", -- "SPLI-227", -- "SPLI-880"

 == ontolex:isLexicalizedSenseOf => :INTEROPERABILITY\_lexConcept, :INTEROPERABILITY\_lexConcept\_2, -- :INTEROPERABILITY\_lexConcept\_3, -- :INTEROPERABILITY\_lexConcept\_4

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:JP-----JOURNEY--PROFILE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-638", -- "SPT2TRAIN-1484"

 == ontolex:isLexicalizedSenseOf => :JP-----JOURNEY--PROFILE\_lexConcept, -- :JP-----JOURNEY--PROFILE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:LOC-OB-----LOCALISATION--ON-BOARD\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-657", -- "SPT2TRAIN-1485"

 == ontolex:isLexicalizedSenseOf => :LOC-OB-----LOCALISATION--ON-BOARD\_lexConcept, -- :LOC-OB-----LOCALISATION--ON-BOARD\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:LOGICAL--ACTOR\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:subject => :"Railway Infrastructure", <http://dbpedia.org/resource/Rail\_transport>, <https://en.wikipedia.org/wiki/Category:Rail\_infrastructure>, -- :"ARCADIA Method", -- <https://dbpedia.org/page/Arcadia\_(engineering)>, -- <https://en.wikipedia.org/wiki/Arcadia\_(engineering)>

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:LTM-----LOOP--TRANSMISSION--MODULE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-617", -- "SPT2TRAIN-1486"

 == ontolex:isLexicalizedSenseOf => :LTM-----LOOP--TRANSMISSION--MODULE\_lexConcept, -- :LTM-----LOOP--TRANSMISSION--MODULE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:LWG-----LOCALISATION--WORKING--GROUP\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-651", -- "SPT2TRAIN-1487"

 == ontolex:isLexicalizedSenseOf => :LWG-----LOCALISATION--WORKING--GROUP\_lexConcept, -- :LWG-----LOCALISATION--WORKING--GROUP\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MAINTAINABILITY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2ARC-938", -- "SPLI-934"

 == ontolex:isLexicalizedSenseOf => :MAINTAINABILITY\_lexConcept, -- :MAINTAINABILITY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MANUFACTURER\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPPRAMSS-7515", -- "SPLI-231", -- "SPLI-277"

 == ontolex:isLexicalizedSenseOf => :MANUFACTURER\_lexConcept, -- :MANUFACTURER\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MBSE-----MODEL-BASED--SYSTEM--ENGINEERING\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-618", -- "SPT2TRAIN-1488"

 == ontolex:isLexicalizedSenseOf => :MBSE-----MODEL-BASED--SYSTEM--ENGINEERING\_lexConcept, -- :MBSE-----MODEL-BASED--SYSTEM--ENGINEERING\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MDCM-----MULTI-DIMENSIONAL--CONFIGURATION--MANAGEMENT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-616", -- "SPT2TRAIN-1489"

 == ontolex:isLexicalizedSenseOf => :MDCM-----MULTI-DIMENSIONAL--CONFIGURATION--MANAGEMENT\_lexConcept, -- :MDCM-----MULTI-DIMENSIONAL--CONFIGURATION--MANAGEMENT\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MDS-----MULTI--DISPLAY--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-635", -- "SPT2TRAIN-1490"

 == ontolex:isLexicalizedSenseOf => :MDS-----MULTI--DISPLAY--SYSTEM\_lexConcept, -- :MDS-----MULTI--DISPLAY--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MEAN--TIME--BETWEEN--FAILURE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-5958", -- "SPLI-953"

 == ontolex:isLexicalizedSenseOf => :MEAN--TIME--BETWEEN--FAILURE\_lexConcept, -- :MEAN--TIME--BETWEEN--FAILURE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MID-----MISSION--DATA\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-640", -- "SPT2TRAIN-1491"

 == ontolex:isLexicalizedSenseOf => :MID-----MISSION--DATA\_lexConcept, -- :MID-----MISSION--DATA\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MODE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-2057", -- "SPLI-948"

 == ontolex:isLexicalizedSenseOf => :MODE\_lexConcept, -- :MODE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:MOVING--BLOCK\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPT2ARC-2582", "SPT2MIG-840", -- "SPLI-951"

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:NATIONAL--SAFETY--AUTHORITY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-5959", -- "SPLI-235", -- "SPLI-279"

 == ontolex:isLexicalizedSenseOf => :NATIONAL--SAFETY--AUTHORITY\_lexConcept, -- :NATIONAL--SAFETY--AUTHORITY\_lexConcept\_2, -- :NATIONAL--SAFETY--AUTHORITY\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:NEW--DEFINITION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-7580", -- "SPPR-7586"

 == ontolex:isLexicalizedSenseOf => :NEW--DEFINITION\_lexConcept, -- :NEW--DEFINITION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:NP-----NO--POWER--MODE--IN--ETCS\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-615", -- "SPT2TRAIN-1492"

 == ontolex:isLexicalizedSenseOf => :NP-----NO--POWER--MODE--IN--ETCS\_lexConcept, -- :NP-----NO--POWER--MODE--IN--ETCS\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:NTC-----NATIONAL--TRAIN--CONTROL\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-614", -- "SPT2TRAIN-1493"

 == ontolex:isLexicalizedSenseOf => :NTC-----NATIONAL--TRAIN--CONTROL\_lexConcept, -- :NTC-----NATIONAL--TRAIN--CONTROL\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:NTP-----NATIONAL--TRAIN--PROTECTION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-637", -- "SPT2TRAIN-1494"

 == ontolex:isLexicalizedSenseOf => :NTP-----NATIONAL--TRAIN--PROTECTION\_lexConcept, -- :NTP-----NATIONAL--TRAIN--PROTECTION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:OB-----ON-BOARD\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-633", -- "SPT2TRAIN-1495"

 == ontolex:isLexicalizedSenseOf => :OB-----ON-BOARD\_lexConcept, -- :OB-----ON-BOARD\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:OCORA-----OPEN--CCS--ON-BOARD--REFERENCE--ARCHITECTURE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-658", -- "SPT2TRAIN-1496"

 == ontolex:isLexicalizedSenseOf => :OCORA-----OPEN--CCS--ON-BOARD--REFERENCE--ARCHITECTURE\_lexConcept, -- :OCORA-----OPEN--CCS--ON-BOARD--REFERENCE--ARCHITECTURE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ODOMETRY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2ARC-1829", -- "SPLI-968"

 == ontolex:isLexicalizedSenseOf => :ODOMETRY\_lexConcept, -- :ODOMETRY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:OE-----OPERATIONAL--EXECUTION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-643", -- "SPT2TRAIN-1497"

 == ontolex:isLexicalizedSenseOf => :OE-----OPERATIONAL--EXECUTION\_lexConcept, -- :OE-----OPERATIONAL--EXECUTION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:OPERATIONAL--HAZARD\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-3758", ++ "SPPRAMSS-7602"

 == ontolex:isLexicalizedSenseOf => :OPERATIONAL--HAZARD\_lexConcept, ++ :OPERATIONAL--HAZARD\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:PER-----PERCEPTION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-634", -- "SPT2TRAIN-1499"

 == ontolex:isLexicalizedSenseOf => :PER-----PERCEPTION\_lexConcept, -- :PER-----PERCEPTION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:QOS-----QUALITY--OF--SERVICE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-627", -- "SPT2TRAIN-1501"

 == ontolex:isLexicalizedSenseOf => :QOS-----QUALITY--OF--SERVICE\_lexConcept, -- :QOS-----QUALITY--OF--SERVICE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:RADIO--BLOCK--CENTRE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2MIG-839", "SPT2TS-1821", -- "SPLI-995"

 == ontolex:isLexicalizedSenseOf => :RADIO--BLOCK--CENTRE\_lexConcept, :RADIO--BLOCK--CENTRE\_lexConcept\_2, -- :RADIO--BLOCK--CENTRE\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:RAILWAY--UNDERTAKING\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2MIG-826", -- "SPLI-1019", -- "SPLI-161", -- "SPLI-193", -- "SPLI-243", -- "SPLI-280", -- "SPLI-339", -- "SPLI-504", -- "SPLI-619"

 == ontolex:isLexicalizedSenseOf => :RAILWAY--UNDERTAKING\_lexConcept, -- :RAILWAY--UNDERTAKING\_lexConcept\_2, -- :RAILWAY--UNDERTAKING\_lexConcept\_3, -- :RAILWAY--UNDERTAKING\_lexConcept\_4, -- :RAILWAY--UNDERTAKING\_lexConcept\_5, -- :RAILWAY--UNDERTAKING\_lexConcept\_6, -- :RAILWAY--UNDERTAKING\_lexConcept\_7, -- :RAILWAY--UNDERTAKING\_lexConcept\_8, -- :RAILWAY--UNDERTAKING\_lexConcept\_9

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:REAL--TIME\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1332", -- "SPLI-340"

 == ontolex:isLexicalizedSenseOf => :REAL--TIME\_lexConcept, -- :REAL--TIME\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:REFERENCE--LOCATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPT2ARC-2228", -- "SPLI-1005"

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:REP-----REPOSITORY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-631", -- "SPT2TRAIN-1502"

 == ontolex:isLexicalizedSenseOf => :REP-----REPOSITORY\_lexConcept, -- :REP-----REPOSITORY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:RISK\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-3772", -- "SPLI-1013"

 == ontolex:isLexicalizedSenseOf => :RISK\_lexConcept, -- :RISK\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:ROLL--AWAY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2OD-4980", -- "SPLI-1014"

 == ontolex:isLexicalizedSenseOf => :ROLL--AWAY\_lexConcept, -- :ROLL--AWAY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:RU-----RAILWAY--UNDERTAKING\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-612", -- "SPT2TRAIN-1503"

 == ontolex:isLexicalizedSenseOf => :RU-----RAILWAY--UNDERTAKING\_lexConcept, -- :RU-----RAILWAY--UNDERTAKING\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SAFE--STATE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-3438", "SPPRAMSS-4045", -- "SPLI-1025"

 == ontolex:isLexicalizedSenseOf => :SAFE--STATE\_lexConcept, :SAFE--STATE\_lexConcept\_2, -- :SAFE--STATE\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SCV-OB-----SIGNAL--CONVERTER-ON-BOARD\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-647", -- "SPT2TRAIN-1504"

 == ontolex:isLexicalizedSenseOf => :SCV-OB-----SIGNAL--CONVERTER-ON-BOARD\_lexConcept, -- :SCV-OB-----SIGNAL--CONVERTER-ON-BOARD\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SERIOUS--ACCIDENT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPRAMSS-4693", -- "SPLI-282"

 == ontolex:isLexicalizedSenseOf => :SERIOUS--ACCIDENT\_lexConcept, -- :SERIOUS--ACCIDENT\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SIL-----SAFETY--INTERITY--LEVEL\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-613", -- "SPT2TRAIN-1505"

 == ontolex:isLexicalizedSenseOf => :SIL-----SAFETY--INTERITY--LEVEL\_lexConcept, -- :SIL-----SAFETY--INTERITY--LEVEL\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SP-----SYSTEM--PILLAR\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-662", -- "SPT2TRAIN-1500"

 == ontolex:isLexicalizedSenseOf => :SP-----SYSTEM--PILLAR\_lexConcept, -- :SP-----SYSTEM--PILLAR\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SWITCH\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-5593", "SPPR-5600", "SPPR-5601", "SPPR-5602", -- "SPLI-1420", -- "SPLI-705"

 == ontolex:isLexicalizedSenseOf => :SWITCH\_lexConcept, :SWITCH\_lexConcept\_2, :SWITCH\_lexConcept\_3, :SWITCH\_lexConcept\_4, -- :SWITCH\_lexConcept\_5, -- :SWITCH\_lexConcept\_6

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SYSTEM--ACTOR\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-2579", -- "SPPR-2052"

 == dcterms:subject => :"Railway Infrastructure", <http://dbpedia.org/resource/Rail\_transport>, <https://en.wikipedia.org/wiki/Category:Rail\_infrastructure>, -- :"ARCADIA Method", -- <https://dbpedia.org/page/Arcadia\_(engineering)>, -- <https://en.wikipedia.org/wiki/Arcadia\_(engineering)>

 == ontolex:isLexicalizedSenseOf => :SYSTEM--ACTOR\_lexConcept, -- :SYSTEM--ACTOR\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SYSTEM--REQUIREMENTS--SPECIFICATION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-138", -- "SPLI-1071"

 == ontolex:isLexicalizedSenseOf => :SYSTEM--REQUIREMENTS--SPECIFICATION\_lexConcept, -- :SYSTEM--REQUIREMENTS--SPECIFICATION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPPR-2065", "SPPR-2578", -- "SPLI-1060"

 == ontolex:isLexicalizedSenseOf => :SYSTEM\_lexConcept, :SYSTEM\_lexConcept\_2, -- :SYSTEM\_lexConcept\_3

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TAP-----TELEMATICS--APPLICATION--FOR--PASSENGER--SERVICE\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-639", -- "SPT2TRAIN-1506"

 == ontolex:isLexicalizedSenseOf => :TAP-----TELEMATICS--APPLICATION--FOR--PASSENGER--SERVICE\_lexConcept, -- :TAP-----TELEMATICS--APPLICATION--FOR--PASSENGER--SERVICE\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TCMS-----TRAIN--CONTROL--AND--MANAGEMENT--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-632", -- "SPT2TRAIN-1507"

 == ontolex:isLexicalizedSenseOf => :TCMS-----TRAIN--CONTROL--AND--MANAGEMENT--SYSTEM\_lexConcept, -- :TCMS-----TRAIN--CONTROL--AND--MANAGEMENT--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TDS-----TRAIN--DISPLAY--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-611", -- "SPT2TRAIN-1508"

 == ontolex:isLexicalizedSenseOf => :TDS-----TRAIN--DISPLAY--SYSTEM\_lexConcept, -- :TDS-----TRAIN--DISPLAY--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1344", -- "SPLI-250", -- "SPLI-283", -- "SPLI-357", -- "SPLI-526", -- "SPLI-642"

 == ontolex:isLexicalizedSenseOf => :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_2, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_3, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_4, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_5, -- :TECHNICAL--SPECIFICATION--FOR--INTEROPERABILITY\_lexConcept\_6

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-142", -- "SPLI-164"

 == ontolex:isLexicalizedSenseOf => :TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexConcept, -- :TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1339", -- "SPLI-643"

 == ontolex:isLexicalizedSenseOf => :TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexConcept, -- :TELEMATICS--APPLICATIONS--FOR--FREIGHT\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TERMINAL--OPERATOR\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => ++ "SPT3TMS-11631", -- "SPLI-645"

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TIMS-----TRAIN--INTEGRITY--MANAGEMENT--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-629", -- "SPT2TRAIN-1509"

 == ontolex:isLexicalizedSenseOf => :TIMS-----TRAIN--INTEGRITY--MANAGEMENT--SYSTEM\_lexConcept, -- :TIMS-----TRAIN--INTEGRITY--MANAGEMENT--SYSTEM\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TRAFFIC--MANAGEMENT--SYSTEM\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPLI-1343", "SPLI-141", "SPT2MIG-829", "SPT2TS-1822", -- "SPT3TMS-10188"

 == ontolex:isLexicalizedSenseOf => :TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept, :TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_2, :TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_3, :TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_4, -- :TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_5

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TRAIN--RUNNING--NUMBER\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2OD-4979", -- "SPLI-1092"

 == ontolex:isLexicalizedSenseOf => :TRAIN--RUNNING--NUMBER\_lexConcept, -- :TRAIN--RUNNING--NUMBER\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TRD-----TRAIN--DATA\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-641", -- "SPT2TRAIN-1510"

 == ontolex:isLexicalizedSenseOf => :TRD-----TRAIN--DATA\_lexConcept, -- :TRD-----TRAIN--DATA\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:TTD-----TRACKSIDE--TRAIN--DETECTION\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-620", -- "SPT2TRAIN-1511"

 == ontolex:isLexicalizedSenseOf => :TTD-----TRACKSIDE--TRAIN--DETECTION\_lexConcept, -- :TTD-----TRACKSIDE--TRAIN--DETECTION\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:UNISIG-----UNION--INDUSTRY--OF--SIGNALLING\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-659", -- "SPT2TRAIN-1512"

 == ontolex:isLexicalizedSenseOf => :UNISIG-----UNION--INDUSTRY--OF--SIGNALLING\_lexConcept, -- :UNISIG-----UNION--INDUSTRY--OF--SIGNALLING\_lexConcept\_2

### ontorail:ontolex:LexicalSense lex\_sp-defs-240619:VLAN-----VIRTUAL--LOCAL--AREA--NETWORK\_lexSense modifications from lex\_sp-defs-240306:

 == dcterms:identifier => "SPT2TRAIN-628", -- "SPT2TRAIN-1513"

 == ontolex:isLexicalizedSenseOf => :VLAN-----VIRTUAL--LOCAL--AREA--NETWORK\_lexConcept, -- :VLAN-----VIRTUAL--LOCAL--AREA--NETWORK\_lexConcept\_2

## ontolex:LexicalConcept entities

### ontorail:ontolex:LexicalConcept 2 cosmetic changes have been skipped

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ACCIDENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "‘accident’ means an unwanted or unintended sudden event or a specific chain of such events which have harmful consequences; accidents are divided into the following categories: collisions; derailments; level crossing accidents; accidents to persons involving rolling stock in motion; fires and others;\n\n[SOURCE: SPPRAMSS-337 - [Directive (EU) 2016/798] Article 3 Definitions (11) ]", -- "As defined in Article 3 of Directive (EU) 2016/798."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ADVANCED--SAFE--TRAIN--POSITIONING--ASTP\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Advanced Safe Train Positioning (ASTP) is a CCS onboard interoperability constituent, separated from the ERTMS/ETCS on-board equipment by fully standardized interfaces with all connected systems. ASTP shall perform functions for safety relevant applications and be the only source of odometry information in the CCS-OB.\n\n\n\n The main ASTP functionalities interfacing with other onboard systems, are: \n\n\* provision of Odometry information\n\n\* identification of all potential virtual Reference Location(s) \n\n\* provision of 3D kinematic information", -- """ Advanced Safe Train Positioning (ASTP) is a CCS onboard interoperability constituent, separated from the ERTMS-ETCS onboard sub-system by standarized interfaces.
\nThe main functionality is to determine and provide a relative position (enhanced odometry) and train localisation information to other onboard systems. ASTP shall contain safety functions of SIL4 integrity level.
\n
\n Remark: The term "advanced" represents the enhanced odometry, while the term "Safe" suggests the SIL 4 integrity level.
\n
\n (image: 2-ASTP.png) """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ALLOCATION--AREA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The area in the trackside which shall be free of operational conflict(s) for the execution of an operational need (movement or other).\n\n\n\n In other words, it is the area in the trackside that shall be reserved to an operational movement. The safety system shall not allow an SPT2OD-6043 - Missing cross-reference to be allocated to conflicting movement(s) or conflicting operational need(s).\n\n \n\n (image: diagram\_20231213-1048.28106.mxg.svg) {comment:64}\n\n Note as a representation, SPT2OD-6043 - Missing cross-reference is equivalent to the combined Danger Zone(s) of the underlying assets over the area in which it is intended to next perform a train movement, possibly including flank protection and overlap areas (to be discussed at a later stage).", -- "The area in the trackside which shall be free of operational conflict(s) for the execution of an operational need (movement or other).
\n
\n In other words, it is the area in the trackside that shall be reserved to an operational movement. The safety system shall not allow an SPT2OD-6043 - Missing cross-reference to be allocated to conflicting movement(s) or conflicting operational need(s).
\n
\n Note as a representation, SPT2OD-6043 - Missing cross-reference is equivalent to the combined Danger Zone(s) of the underlying assets over the area in which it is intended to next perform a train movement, possibly including flank protection and overlap areas (to be discussed at a later stage)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ANUNCIO--DE--SENALES--Y--FRENADO--AUTOMATICO\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Anuncio de Señales y Frenado Automático (ASFA; "Announcement of Signals and Automatic Braking");\n\n Is an Automatic Protetion System which is widely used on the Spanish rail network. It consists of a mechanism that stops a train if the driver does not properly heed signals. """, -- """ Anuncio de Señales y Frenado Automático (ASFA; "Announcement of Signals and Automatic Braking");
\n Is an Automatic Protetion System which is widely used on the Spanish rail network. It consists of a mechanism that stops a train if the driver does not properly heed signals. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:APPLICATION--EXECUTION--ENVIRONMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Application Execution Environment refers to the combination of Runtime Environment and Safety Framework.\n\n\n\nPrevious definition: The Application Execution Environment refers to the combination of Runtime Environment and Safety Environment.", -- "The Application Execution Environment refers to the combination of Runtime Environment and Safety Framework.
\n
\nPrevious definition: The Application Execution Environment refers to the combination of Runtime Environment and Safety Environment."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:APPLICATION--LAYER\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Application Layer refers to the functions provided by the Functional Systems. These functions are implemented as Tasks within Functional Applications.\n\n\n\n Previous definition: The Application Layer contains Functional Applications that constitute Functional Systems.", -- "The Application Layer refers to the functions provided by the Functional Systems. These functions are implemented as Tasks within Functional Applications.
\n
\n Previous definition: The Application Layer contains Functional Applications that constitute Functional Systems."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:APPLICATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An application in SP context is the resulting situation of a system beeing used in a specific environment by specific actors. \n\nIn short - Application = System + Processes + Actors + Environment.", -- "An application in SP context is the resulting situation of a system beeing used in a specific environment by specific actors.
\nIn short - Application = System + Processes + Actors + Environment."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ARCHITECTURAL--CONCEPT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The architectural process comprises four steps, each dealing with a separate concern.\n\nThe general concept implements the architecture recommendations from the System Pillar report [SPREP, page 11] for a function-based architecture and a layered architecture approach. Both concepts can be realised with the architectural principles described herein.These steps are described in detail in the following chapters. \n\n\* Operational analysis (OA): identify the operational process needs that are to be supported by the technical systems.{comment:4} This analysis should focus as purely as possible on the processes and ideally does not take any specific technical system architecture into account. The operational analysis is usually performed on an abstraction layer above the topmost system in the systems of systems hierarchy and performed only once. See Chapter 5.6\n\n\* System analysis (SA): identify the needs of the system of interest. This step does not design a specific technical solution but captures the needs for the future system. It hence represents a statement of work and not a finished piece of engineering. It is used to rationalize the decision, which operational processes will be performed by the system of interest, and which will be not (these processes then mostly will be either performed by other systems or by human actors and defined as operating rules). System analysis is performed recursively:\n\n \* Once for the topmost system of systems, deriving the initial need from the operational analysis\n\n \* Multiple times for each system of system decomposition step, deriving the system needs of the lower level of decomposition from the higher level of decomposition\n\n\* Logical architecture (LA): design a solution to the system needs based on solution concepts and architectural concepts. Split the system functions based on solution concepts (e.g. absolute positioning vs reference point based localisation, moving blocks, fixed blocks or hybrid) so that it becomes clear, how and by which steps the inputs to a system function are converted to the outputs. This step does not yet define an architecture and does not refer to technical solution concepts like ETCS or ATO. As the system under consideration is still a blackbox, the logical architecture still leaves the question open, what subsystem structure is the to be used (e.g. very modular subsystems vs. bigger subsystems or combined HW/SW subsystems vs. SW-modules on a common platform). This step is performed once, before the subsystem architecture shall be derived.\n\n\* Subsystem architecture (SSA): design the final set of tenderable subsystems and integrate all necessary non-functional requirements. This step integrates all considerations on the intended structure of subsystems and interfaces (down to FFFIS) as well as all open technical aspects into a consistent architectural definition.{comment:3}", -- "The architectural process comprises four steps, each dealing with a separate concern.
\nThe general concept implements the architecture recommendations from the System Pillar report [SPREP, page 11] for a function-based architecture and a layered architecture approach. Both concepts can be realised with the architectural principles described herein.These steps are described in detail in the following chapters.
\n\* Operational analysis (OA): identify the operational process needs that are to be supported by the technical systems.{comment:4} This analysis should focus as purely as possible on the processes and ideally does not take any specific technical system architecture into account. The operational analysis is usually performed on an abstraction layer above the topmost system in the systems of systems hierarchy and performed only once. See Chapter 5.6
\n\* System analysis (SA): identify the needs of the system of interest. This step does not design a specific technical solution but captures the needs for the future system. It hence represents a statement of work and not a finished piece of engineering. It is used to rationalize the decision, which operational processes will be performed by the system of interest, and which will be not (these processes then mostly will be either performed by other systems or by human actors and defined as operating rules). System analysis is performed recursively:
\n \* Once for the topmost system of systems, deriving the initial need from the operational analysis
\n \* Multiple times for each system of system decomposition step, deriving the system needs of the lower level of decomposition from the higher level of decomposition
\n\* Logical architecture (LA): design a solution to the system needs based on solution concepts and architectural concepts. Split the system functions based on solution concepts (e.g. absolute positioning vs reference point based localisation, moving blocks, fixed blocks or hybrid) so that it becomes clear, how and by which steps the inputs to a system function are converted to the outputs. This step does not yet define an architecture and does not refer to technical solution concepts like ETCS or ATO. As the system under consideration is still a blackbox, the logical architecture still leaves the question open, what subsystem structure is the to be used (e.g. very modular subsystems vs. bigger subsystems or combined HW/SW subsystems vs. SW-modules on a common platform). This step is performed once, before the subsystem architecture shall be derived.
\n\* Subsystem architecture (SSA): design the final set of tenderable subsystems and integrate all necessary non-functional requirements. This step integrates all considerations on the intended structure of subsystems and interfaces (down to FFFIS) as well as all open technical aspects into a consistent architectural definition.{comment:3}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:AREA--CONTROLLER--THE--AREA--CONTROLLER--MANAGES--AREAS--FOR--THE--VIEW\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Area Controller\n\n The Area Controller manages areas for the View.", -- "Area Controller
\n The Area Controller manages areas for the View."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:AUTHENTICATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The process to verify the identity of communicating peers.\n\n (source: SPPRAMSS-1705 - [UNISIG Subset-146] )", -- "The process of determining whether someone or something is who or what it is declared to be."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:AUTOMATIC--TRAIN--OPERATION\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Automatic Train Operation is technology for automating the operation of trains. The degree of the automatisation is shown by the Grade of Automatation (GoA). GoA0: train operating on-sight, no automation GoA1: train operating manual, train driver controls starting, stopping, passenger service functions as opening and closing doors and handling emergency. Train protection systems like ETCS L1 in place. GoA2: train operating semi-automatic. Starting and stopping automated using advanced train protection systems like ETCS L2 or 3, driver operates passenger service functions and handles emergencies GoA3: driverless train operation. Starting and stopping automated, service staff operates passenger service functions and handles emergencies GoA4: unattended train operation. All operations are fully automated without any on-train staff", -- "Automatic Train Operation"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:AVAILABILITY--%3COF--A--PRODUCT%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Ability of an item to be in a state to perform a required function under given conditions at a given instant of time or over a given time interval, assuming that the required external resources are provided \n\n[SOURCE: IEC 60050-821: FDIS2016, 821-05-82, modified]\n\nSource: SPPRAMSS-349 - [EN 50126-1:2017]", -- "Ability of an item to be in a state to perform a required function under given conditions at a given instant of time or over a given time interval, assuming that the required external resources are provided
\n[SOURCE: IEC 60050-821: FDIS2016, 821-05-82, modified]
\nSource: SPPRAMSS-349 - [EN 50126-1:2017]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:AVAILABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Availability: property of being accessible and usable on demand by an authorized entity\n\n(source: ISO 27000-2018 )", -- "Availability: property of being accessible and usable on demand by an authorized entity
\n(source: ISO 27000-2018 )"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BACKWARDS--COMPATIBILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Backwards compatibility is a design or software feature that allows a product, system, or software application to remain compatible with earlier versions or older hardware.\n\n\n\n In the context of software, it means that a newer version of a program can still run and interact with files, data, or systems that were created using previous versions of that software. This ensures that users can upgrade to the latest version without losing access to their existing data or needing to make significant changes to their workflows. It's a valuable feature that enhances user convenience and reduces disruptions when technology evolves.\n\n\n\n Backward compatibility for hardware, also known as "hardware backward compatibility," refers to the ability of a newer piece of hardware to work seamlessly with older hardware components or peripherals, such as connectors, interfaces, or accessories. In the context of hardware, backward compatibility typically ensures that the new hardware can accommodate and interact with devices or components that were designed for older hardware specifications.\n\n Hardware backward compatibility is important for user convenience, cost savings, and reducing the need for immediate updates to all associated hardware components when a single component is upgraded. It often requires the inclusion of older ports or connectors on newer hardware or the development of adapters or converters to bridge the compatibility gap between old and new technologies. """, -- """ Backwards compatibility is a design or software feature that allows a product, system, or software application to remain compatible with earlier versions or older hardware.
\n
\n In the context of software, it means that a newer version of a program can still run and interact with files, data, or systems that were created using previous versions of that software. This ensures that users can upgrade to the latest version without losing access to their existing data or needing to make significant changes to their workflows. It's a valuable feature that enhances user convenience and reduces disruptions when technology evolves.
\n
\n Backward compatibility for hardware, also known as "hardware backward compatibility," refers to the ability of a newer piece of hardware to work seamlessly with older hardware components or peripherals, such as connectors, interfaces, or accessories. In the context of hardware, backward compatibility typically ensures that the new hardware can accommodate and interact with devices or components that were designed for older hardware specifications.
\n Hardware backward compatibility is important for user convenience, cost savings, and reducing the need for immediate updates to all associated hardware components when a single component is upgraded. It often requires the inclusion of older ports or connectors on newer hardware or the development of adapters or converters to bridge the compatibility gap between old and new technologies. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BIOMETRIC--READER--DEVICE--THAT--READS--THE--IDENTITY--OF--A--PERSON--BY--COMPARING--SOME--AT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Biometric Reader\n\n Device that reads the identity of a person by comparing some attribute of their\n\n physiological being or behavioral traits against a sample database. This reader permits the authentication of the actor.", -- "Biometric Reader
\n Device that reads the identity of a person by comparing some attribute of their
\n physiological being or behavioral traits against a sample database. This reader permits the authentication of the actor."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BUILDING--BLOCK--CONFIGURATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ A BuildingBlockConfiguration (BBC) is a configurable layer within the configuration dependency tree.\n\nIt must be uniquely identifiable within the system and may contain a configurationFile artifact and dependencies to other BBCs.\n\nOne BuildingBlock (BB) can have one or more BuildingBlock Configurations (BBC).\n\nOne Building BlockConfiguration (BBC) has exactly one configuration.json file (and a configurationSafe.json if it is a safe BBC).\n\nBBCs that itself have no further dependencies in their configuration.json file are the Lowest Updatable Units (LUU - can be updated on its own).\n\nBBCs that are updatable must provide a corresponding configurationFile (payload).\n\nBBCs that are updatable need an endpoint described in the "configuration.json" file.\n\nThat BBC endpoint can be accessed using a protocol capable of file transfer (e.g. opc ua, https, sftp etc.)). """, -- """ The Building Block Configuration is an exhaustive, unambiguous set (configuration items and BB manifest file) of all Configuration Items required to operate one instance of a Building Block. It includes default values for all parameters. As a consequence the Building Block Configuration can only be related to the "Generic Application" or "Generic Product" from CENELEC. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BUILDING--BLOCK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "{comment:33}\n\nA building block is a sourceable unit of the CCS system (hardware and/or software), having standardised functionality, standardised performance (RAM), standardised safety (including Tolerable Functional Failure Rate [TFFR], Safety Integrity Level [SIL] and Safety Related Application Conditions [SRAC]), standardised security and standardised interfaces towards other building blocks and/or external systems.\n\nA building block can also be defined as a standardised module. {comment:158}", -- "{comment:33}
\nA building block is a sourceable unit of the CCS system (hardware and/or software), having standardised functionality, standardised performance (RAM), standardised safety (including Tolerable Functional Failure Rate [TFFR], Safety Integrity Level [SIL] and Safety Related Application Conditions [SRAC]), standardised security and standardised interfaces towards other building blocks and/or external systems.
\nA building block can also be defined as a standardised module. {comment:158}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BUILDING--BLOCK\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A Building Block is an equipment based (hardware and/or software) or logical unit of the System having:\n\n\* standardised functionality or aggregates standard functionality it depends on\n\n\* may have standardised PRAMS requirements (including Tolerable Functional Failure Rate [TFFR]\n\n\* may have Safety Integrity Levels [SIL] for functions within the system border and Safety Related Application Conditions [SRAC])\n\n\* standardised cyber security requirements (including Security Level [SL] based on the security requirements, and Security Related Application Conditions [SRAC])\n\n\* may have (on lower levels) standardised interfaces (on all OSI Layers) towards other Building Blocks and/or external systems.\n\nEquipment based Building Blocks are separately sourceable from different suppliers and capable of being integrated by a third party (integrator). \n\nA BuildingBlock has one or more BuildingBlockConfigurations. \n\n A BuildingBlock must have a unique identifier composed of configurationGroupId, configurationId and configurationVersion.", -- """ A BuildingBlock is a sourceable unit of the System (hardware and/or software) having:
\n\* standardised functionality
\n\* standardised PRAMS requirements (including Tolerable Functional Failure Rate [TFFR]
\n\* Safety Integrity Levels [SIL] for functions within the system border and Safety Related Application Conditions [SRAC])
\n\* standardised cyber security requirements (including Security Level [SL] based on the security requirements, and Security Related Application Conditions [SRAC])
\n\* standardised interfaces (on all OSI Layers) towards other Building Blocks and/or external systems.
\nBuilding Blocks are separately sourceable from different suppliers and capable of being integrated by a third party.
\nA BuildingBlock is the Lowest Updateable Unit (LUU - can be updated on its own) and must implement the Configuration interface.
\n A BuildingBlock must have a unique identifier.
\nIf the BuildingBlock has safe functions it has a current "releaseVersionSafe".
\nIf the BuildingBlock has non safe functions that are independent of the "releaseVersionSafe" it has a current "releaseVersionNonSafe".
\nA BuildingBlock configuration can have a dependency to other BuildingBlocks configurations having a specified releaseVersionSafe/releaseVersionNonSafe. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BUILDING--STRATEGY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "processus allowing to regroup physical components into consistent sub-collection in terms of industral development \n\n concerns and a strategy point of view", -- "processus allowing to regroup physical components into consistent sub-collection in terms of industral development
\n concerns and a strategy point of view"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BUTTON--A--HARD--KEY--ALLOCATED--TO--A--DEDICATED--SYSTEM--ON--A--CAB---IT\_S--DESIGNED--WITH--A\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Button\n\n A Hard Key allocated to a dedicated system on a cab. It's designed with a dedicated SIL level. It allows a selection from two states and keeps one state as long as it is pressed.", -- "Button
\n A Hard Key allocated to a dedicated system on a cab. It's designed with a dedicated SIL level. It allows a selection from two states and keeps one state as long as it is pressed."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:BUZZER--ELECTRICAL--DEVICE--THAT--MAKES--A--BUZZING--NOISE--AND--IS--USED--TO--PROVIDE--AN--AU\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Buzzer\n\n Electrical device that makes a buzzing noise and is used to provide an audible warning.", -- "Buzzer
\n Electrical device that makes a buzzing noise and is used to provide an audible warning."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CAPACITY--WASTE--MEANS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Paths are ordered without proper need, allocated and modified after allocation so that other ROCs cannot sensibly make use of them\n\n\* Allocated paths are changed by RIMs after allocation due to the impact of TCRs by RIMs (same one allocating the path or another one on a different network)\n\n\* An unnecessary number of paths are not allocated or are cancelled by RIMs due to poor alignment of several planned TCRs\n\n\* Paths are not allocated or are cancelled by RIMs due to planned TCRs at times when little or no work is actually being carried out\n\n\* Paths are not allocated or are cancelled by RIMs due to planned TCRs that were cancelled\n\n\* Paths are not usable (or re-usable) due to the changes being communicated too late (i.e., due to paths being cancelled too late, TCRs cancelled, etc.)", -- "\* Paths are ordered without proper need, allocated and modified after allocation so that other ROCs cannot sensibly make use of them
\n\* Allocated paths are changed by RIMs after allocation due to the impact of TCRs by RIMs (same one allocating the path or another one on a different network)
\n\* An unnecessary number of paths are not allocated or are cancelled by RIMs due to poor alignment of several planned TCRs
\n\* Paths are not allocated or are cancelled by RIMs due to planned TCRs at times when little or no work is actually being carried out
\n\* Paths are not allocated or are cancelled by RIMs due to planned TCRs that were cancelled
\n\* Paths are not usable (or re-usable) due to the changes being communicated too late (i.e., due to paths being cancelled too late, TCRs cancelled, etc.)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CAPACITY-FRIENDLY--BEHAVIOUR--MEANS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* A path confirmed is a commitment from both ROC and RIM, which should be kept after it has been allocated and accepted\n\n\* Ordering capacity only when the market need for it need has been confirmed (ROC)\n\n\* Give back the capacity as soon the market need changes, or other external requirements are known (ROC)\n\n\* Defining the capacity for TCRs in a way that no more capacity than necessary is blocked – in dialogue between ROCs and RIMs\n\n\* Planning the majority of TCRs and their impact to paths before path allocation (RIM)\n\n\* Reducing TCRs in operational timetable to the minimum and planning their impact to paths/trains as early as possible (RIM)\n\n\* Stabilising TCR planning - avoiding TCR cancellations that lead to a double loss of business, as well as massive re-planning of scheduled TCRs, which results in high efforts in operational planning (RIM)", -- "\* A path confirmed is a commitment from both ROC and RIM, which should be kept after it has been allocated and accepted
\n\* Ordering capacity only when the market need for it need has been confirmed (ROC)
\n\* Give back the capacity as soon the market need changes, or other external requirements are known (ROC)
\n\* Defining the capacity for TCRs in a way that no more capacity than necessary is blocked – in dialogue between ROCs and RIMs
\n\* Planning the majority of TCRs and their impact to paths before path allocation (RIM)
\n\* Reducing TCRs in operational timetable to the minimum and planning their impact to paths/trains as early as possible (RIM)
\n\* Stabilising TCR planning - avoiding TCR cancellations that lead to a double loss of business, as well as massive re-planning of scheduled TCRs, which results in high efforts in operational planning (RIM)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CBM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "condition-based maintenance\n\npreventive maintenance based on the assessment of physical condition\n\nNote 1 to entry: The condition assessment may be by operator observation, conducted according to a schedule, or by condition monitoring (192-06-28 SPPRAMSS-4462 - condition monitoring, <of an item> ) of system parameters.\n\n[SOURCE: IEC 60050-192:2015, 192-06-07]", -- "condition-based maintenance
\npreventive maintenance based on the assessment of physical condition
\nNote 1 to entry: The condition assessment may be by operator observation, conducted according to a schedule, or by condition monitoring (192-06-28 SPPRAMSS-4462 - condition monitoring, <of an item> ) of system parameters.
\n[SOURCE: IEC 60050-192:2015, 192-06-07]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CCF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Common Cause Failures: failures of multiple items, which would otherwise be considered independent of one another, resulting from a single cause\n\n \n\n Note 1 to entry: Common cause failures can also be "common mode failures" (IEV 192-03-19).\n\n Note 2 to entry: The potential for common cause failures reduces the effectiveness of system redundancy.\n\n[SOURCE: IEC 60050-192:2015, 192-03-18] """, -- """ Common Cause Failures: failures of multiple items, which would otherwise be considered independent of one another, resulting from a single cause
\n
\n Note 1 to entry: Common cause failures can also be "common mode failures" (IEV 192-03-19).
\n Note 2 to entry: The potential for common cause failures reduces the effectiveness of system redundancy.
\n[SOURCE: IEC 60050-192:2015, 192-03-18] """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CCS--DEPLOYMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "CCS Deployment refers to one physical deployment of a CCS System, that is uniquely identifiable with configurationGroupId, configurationId and configurationVersion. A CCS Deployment consists of the CCS hardware running the BBCs that are defined in safe and non-safe Top-Level BuildingBlockConfigurations (BBC) and their dependencies.", -- "CCS Deployment refers to one physical deployment of a CCS System, that is also recognised with a unique identifier. A CCS Deployment consists of the CCS hardware running a specific CCS Configuration."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CCS--FEATURE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ A CCS Feature is a main/top-level function on System Level 3 for CCS. Examples: ATO GoA2, Cold Movement Detection, C-DAS\n\n\n\n Mixable onboard features\n\n(M/O means mandatory/optional)\n\n\n\nFeature(s) | M/O | Comment/Constrain/Condition/Version/Subfeature\n\nETCS (ATP/ATO GoA1), only radio based | M | Compatibilty matrix onboard/trackside System Versions: Like today in TSI22. Assumption about phased out SV for the target system later on: Will be analysed in migration team. Inclusion of GSM-R in target architecture: To be analysed by MIG team with COM team, current TSI discussions to be included.\n\nATO GoA 2,3 or 4 | O | \n\nRTO | O | \n\nAbsolute Continuous Train Positioning | O | Option: Capabal to use trackside augmentation information (like EGNOS or map information)\n\nTrain Integrity Information | O | Mandatory, if no trackside train detection exists\n\nReliable train length information | O | Mandatory, if no trackside train detection exists\n\nCold movement detection | O | \n\nDAC | O | \n\nC-DAS | O | \n\nStandard diagnostic interface | O | \n\nTMS onboard user interface | O | \n\nFallback/light ATP system | O | To be discussed. Idependent and simplified mode or system that has minimal dependecies/maximized availability and allows safe rudimentory traffic in most degraded modes or for special vehicles\n\n Mixable trackside features in scope\n\n(M/O means mandatory/optional)\n\n \n\n \n\nFeature(s) | M/O | Comment/Constrain/Condition/Version/Subfeature\n\nETCS onboard (ATP/ATO GoA1) | M | Radio based ETCS without lineside signals (no support for "overlay" installations.\n\nATO GoA 2,3 or 4 | O | \n\nRTO | O | \n\nPostioning Augmentation Information | O | EGNOS, onboard map service\n\nTrackside Train detection | O | Mandatory, if trains/train units have no train-integrity, position reporting and reliable length information. Could be block sensors, geometric positions or point sensors. Onboard/trackside sensors can exist in parallel.\n\nDAC Control Applications | O | \n\nC-DAS Service | O | \n\nTMS services for onboard | O | e.g. request shunting route or possession by driver\n\nSupport for fallback/light ATP system | O | To be discussed. Idependent and simplified mode or system that has minimal dependecies/maximized availability and allows safe rudimentory traffic in most degraded modes or for special vehicles """, -- """ A CCS Feature is a main/top-level function on System Level 3 for CCS. Examples: ATO GoA2, Cold Movement Detection, C-DAS
\n
\n Mixable onboard features
\n(M/O means mandatory/optional)
\n
\nFeature(s) | M/O | Comment/Constrain/Condition/Version/Subfeature
\nETCS (ATP/ATO GoA1), only radio based | M | Compatibilty matrix onboard/trackside System Versions: Like today in TSI22. Assumption about phased out SV for the target system later on: Will be analysed in migration team. Inclusion of GSM-R in target architecture: To be analysed by MIG team with COM team, current TSI discussions to be included.
\nATO GoA 2,3 or 4 | O |
\nRTO | O |
\nAbsolute Continuous Train Positioning | O | Option: Capabal to use trackside augmentation information (like EGNOS or map information)
\nTrain Integrity Information | O | Mandatory, if no trackside train detection exists
\nReliable train length information | O | Mandatory, if no trackside train detection exists
\nCold movement detection | O |
\nDAC | O |
\nC-DAS | O |
\nStandard diagnostic interface | O |
\nTMS onboard user interface | O |
\nFallback/light ATP system | O | To be discussed. Idependent and simplified mode or system that has minimal dependecies/maximized availability and allows safe rudimentory traffic in most degraded modes or for special vehicles
\n Mixable trackside features in scope
\n(M/O means mandatory/optional)
\n
\n
\nFeature(s) | M/O | Comment/Constrain/Condition/Version/Subfeature
\nETCS onboard (ATP/ATO GoA1) | M | Radio based ETCS without lineside signals (no support for "overlay" installations.
\nATO GoA 2,3 or 4 | O |
\nRTO | O |
\nPostioning Augmentation Information | O | EGNOS, onboard map service
\nTrackside Train detection | O | Mandatory, if trains/train units have no train-integrity, position reporting and reliable length information. Could be block sensors, geometric positions or point sensors. Onboard/trackside sensors can exist in parallel.
\nDAC Control Applications | O |
\nC-DAS Service | O |
\nTMS services for onboard | O | e.g. request shunting route or possession by driver
\nSupport for fallback/light ATP system | O | To be discussed. Idependent and simplified mode or system that has minimal dependecies/maximized availability and allows safe rudimentory traffic in most degraded modes or for special vehicles """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CCS\_TMS--DATA--MODEL\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The CCS/TMS Data Model{comment:91} defines the harmonised language to generate and transport the Domain Data at System Pillar interfaces. The Transversal CCS Subdomain 1 (SD1) is responsible for the specification of the CCS/TMS Data Model in collaboration with\n\n \n\n\* the System Pillar domains which apply the defined data structures in interface specifications\n\n\* the Innovation Pillar which proves the applicability of the data model by demonstrators.", -- "The CCS/TMS Data Model{comment:91} defines the harmonised language to generate and transport the Domain Data at System Pillar interfaces. The Transversal CCS Subdomain 1 (SD1) is responsible for the specification of the CCS/TMS Data Model in collaboration with
\n
\n\* the System Pillar domains which apply the defined data structures in interface specifications
\n\* the Innovation Pillar which proves the applicability of the data model by demonstrators."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CI--%3D--CENTRAL--INSTANCE--ECM--1--AND--VEHICLE--KEEPER--ARE--REGISTERED--IN--EVR--FDFTO--TC\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "CI = Central Instance\n\nECM 1 and vehicle keeper are registered in EVR ()\n\nFDFTO TCG = Technical Coordination Group{comment:7}", -- "CI = Central Instance
\nECM 1 and vehicle keeper are registered in EVR ()
\nFDFTO TCG = Technical Coordination Group{comment:7}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CLEAN--CODE--HAS--AN--IMPORTANT--IMPLICATION--OF--THE--PROJECT\_S--SUCCESS--AS--CLEAN--CODE--I\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Clean code has an important implication of the project’s success as clean code is more efficient and reduces potential bugs.\n\nThe following code guidelines should be followed: \n\n\* Readability: Readable code is easy to follow and optimizes space and time\n\n\* Conventions: Follow conventions will structure the code in a better way and reduces unnecessary lines of code - less code is less complexity.\n\n\* Indentation: Proper indentation is very important to increase the readability.\n\n\* Design Principles: Resolves common problems in a very structured way.\n\n\* Documentation: The code should be properly commented for understanding easily.\n\nEspecially for microservices, the following guidelines should be followed: \n\n\* Software components should be built as independent stateless services.\n\n\* All business logic in a service should be encapsulated with the data upon which it acts.\n\n\* There should be no direct access to a database from outside a service. Any and all access to a database should be accomplished by invoking a service specifically implemented to do so.\n\n\* Each service should publish an interface that enables access to its data and functionality by other services.\n\n\n\nFurthermore, the system follows the 12-factor-app methodology: \n\n\* Codebase: One codebase tracked in revision control; many deploys.\n\n\* Dependencies: Explicitly declare and isolate dependencies.\n\n\* Config: Store config in the environment.\n\n\* Backing services: Treat backing services as attached resources.\n\n\* Build, release, run: Strictly separate build and run stages.\n\n\* Processes: Execute the app as one or more stateless processes.\n\n\* Port binding: Export services via port binding.\n\n\* Concurrency: Scale out via the process model.\n\n\* Disposability: Maximize robustness with fast startup and graceful shutdown.\n\n\* Dev/prod parity: Keep development, staging, and production as similar as possible.\n\n\* Logs: Treat logs as event streams.\n\n\* Admin processes: Run admin/management tasks as one-off processes.", -- "Clean code has an important implication of the project’s success as clean code is more efficient and reduces potential bugs.
\nThe following code guidelines should be followed:
\n\* Readability: Readable code is easy to follow and optimizes space and time
\n\* Conventions: Follow conventions will structure the code in a better way and reduces unnecessary lines of code - less code is less complexity.
\n\* Indentation: Proper indentation is very important to increase the readability.
\n\* Design Principles: Resolves common problems in a very structured way.
\n\* Documentation: The code should be properly commented for understanding easily.
\nEspecially for microservices, the following guidelines should be followed:
\n\* Software components should be built as independent stateless services.
\n\* All business logic in a service should be encapsulated with the data upon which it acts.
\n\* There should be no direct access to a database from outside a service. Any and all access to a database should be accomplished by invoking a service specifically implemented to do so.
\n\* Each service should publish an interface that enables access to its data and functionality by other services.
\n
\nFurthermore, the system follows the 12-factor-app methodology:
\n\* Codebase: One codebase tracked in revision control; many deploys.
\n\* Dependencies: Explicitly declare and isolate dependencies.
\n\* Config: Store config in the environment.
\n\* Backing services: Treat backing services as attached resources.
\n\* Build, release, run: Strictly separate build and run stages.
\n\* Processes: Execute the app as one or more stateless processes.
\n\* Port binding: Export services via port binding.
\n\* Concurrency: Scale out via the process model.
\n\* Disposability: Maximize robustness with fast startup and graceful shutdown.
\n\* Dev/prod parity: Keep development, staging, and production as similar as possible.
\n\* Logs: Treat logs as event streams.
\n\* Admin processes: Run admin/management tasks as one-off processes."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:COMMON--INSTANCE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "FDFT Central Instance", -- "Central Instance"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:COMMON--STANDARD--PROPERTIES--OF--WORKITEMS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Title: The name of the work item\n\n\* Description/design: The description of the work item = the design. The description is work item type specific (e.g., a class description for an exchange object).\n\n\* Type: One of the types in the next chapter, like “operational problem analysis”, “operational requirement”, “System Function” or “logical component”\n\n\* State: Work items and link types have a sequence of states, they runs through while a trace is worked out. The minimal set of states is\n\n\* Suspect: Because of trace changes potentially not any more valid (to be checked)\n\n\* Configuration: (Multiple choice list) Every work item is part of one or more “configurations”. Configurations can be releases, or certain versions of an architecture (for scalability or migration)\n\n\* Assignment: Every work item shall be assigned to a person or team. It is the role of a functional team to assign unassigned work items when the author is not sure where to assign. The “unassigned” work items are forming the work que for a functional team.\n\n\* Priority\n\n\* Due date/finished on\n\n\* System Level: Every work item has one of the following System levels: “1/2”, “3”, “4”, “5”. The levels are needed to make the right team assignment choices. Example for some requirements:\n\n \* Requirement “The ATO GoA 4 operational capability shall allow to move trains without driver” – this requirement has System Level 1/2 because CCS, TMS and DAC are involved. Therefore, the modelling service needs to break it down it.\n\n \* “The ATP operational capability shall allow safe train ahead distances that are shorter than the breaking distance of the following train” – this requirement has System Level 3 because several elements of CCS are involved.\n\n \* “The maintenance process of an object controller shall be possible via remote operations as far as economically viable” – this requirement has system level 4, the Trackside Asset CS domain will resolve it.\n\n\* Rationale: The reason for the design (description)\n\n\* Comments: All historical work/review comments to a work item incl. Answer/reaction\n\n\* Approvers: Experts that are asked to confirm / object to the correctness of a work item", -- "\* Title: The name of the work item
\n\* Description/design: The description of the work item = the design. The description is work item type specific (e.g., a class description for an exchange object).
\n\* Type: One of the types in the next chapter, like “operational problem analysis”, “operational requirement”, “System Function” or “logical component”
\n\* State: Work items and link types have a sequence of states, they runs through while a trace is worked out. The minimal set of states is
\n\* Suspect: Because of trace changes potentially not any more valid (to be checked)
\n\* Configuration: (Multiple choice list) Every work item is part of one or more “configurations”. Configurations can be releases, or certain versions of an architecture (for scalability or migration)
\n\* Assignment: Every work item shall be assigned to a person or team. It is the role of a functional team to assign unassigned work items when the author is not sure where to assign. The “unassigned” work items are forming the work que for a functional team.
\n\* Priority
\n\* Due date/finished on
\n\* System Level: Every work item has one of the following System levels: “1/2”, “3”, “4”, “5”. The levels are needed to make the right team assignment choices. Example for some requirements:
\n \* Requirement “The ATO GoA 4 operational capability shall allow to move trains without driver” – this requirement has System Level 1/2 because CCS, TMS and DAC are involved. Therefore, the modelling service needs to break it down it.
\n \* “The ATP operational capability shall allow safe train ahead distances that are shorter than the breaking distance of the following train” – this requirement has System Level 3 because several elements of CCS are involved.
\n \* “The maintenance process of an object controller shall be possible via remote operations as far as economically viable” – this requirement has system level 4, the Trackside Asset CS domain will resolve it.
\n\* Rationale: The reason for the design (description)
\n\* Comments: All historical work/review comments to a work item incl. Answer/reaction
\n\* Approvers: Experts that are asked to confirm / object to the correctness of a work item"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:COMPARTMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A Compartment is a consistent, integrated entity comprising exactly one Runtime Environment Instance, at most one Safety Environment Replica, and Task Replicas of its respective Functional Applications. It can be deployed on either a Physical or a Virtual Computing Element.\n\n\n\n Previous definition: A Compartment is a consistent, integrated entity comprising exactly one Runtime Environment Instance, Safety Environment Task Replicas of at most one Safety Environment, and Functional Application Task Replicas of its respective Functional Applications. It can be deployed on either a Physical or a Virtual Computing Element.", -- "A Compartment is a consistent, integrated entity comprising exactly one Runtime Environment Instance, at most one Safety Environment Replica, and Task Replicas of its respective Functional Applications. It can be deployed on either a Physical or a Virtual Computing Element.
\n
\n Previous definition: A Compartment is a consistent, integrated entity comprising exactly one Runtime Environment Instance, Safety Environment Task Replicas of at most one Safety Environment, and Functional Application Task Replicas of its respective Functional Applications. It can be deployed on either a Physical or a Virtual Computing Element."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:COMPONENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "{comment:35}\n\nA component is used to structure functionality within building blocks. It implements and encapsulates one or more behaviors (business logic) and exposes services via defined interfaces to other components.{comment:159}", -- "{comment:35}
\nA component is used to structure functionality within building blocks. It implements and encapsulates one or more behaviors (business logic) and exposes services via defined interfaces to other components.{comment:159}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONCEPTUAL--GLOSSARY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Container of concepts, typically class model illustrating a lexical definition, incl. relationships between concepts. May also be imported or authored by the project.\n\nConceptual glossaries are referred to by lexcial glossaries.", -- "Container of concepts, typically class model illustrating a lexical definition, incl. relationships between concepts. May also be imported or authored by the project.
\nConceptual glossaries are referred to by lexcial glossaries."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONDITION--MONITORING--%3COF--AN--ITEM%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "obtaining information about physical state or operational parameters\n\n Note 1 to entry: Condition monitoring is used to determine when preventive maintenance may be required.\n\n Note 2 to entry: Condition monitoring may be conducted automatically during operation or at planned intervals.\n\n Note 3 to entry: Condition monitoring methods include: vibration analysis, tribology and thermography.\n\n [SOURCE: IEC 60050-192:2015, 192-06-28]", -- "obtaining information about physical state or operational parameters
\n Note 1 to entry: Condition monitoring is used to determine when preventive maintenance may be required.
\n Note 2 to entry: Condition monitoring may be conducted automatically during operation or at planned intervals.
\n Note 3 to entry: Condition monitoring methods include: vibration analysis, tribology and thermography.
\n [SOURCE: IEC 60050-192:2015, 192-06-28]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONFIDENTIALITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Confidentiality: property that information is not made available or disclosed to unauthorized individuals, entities, or processes\n\n (source: ISO 27000-2018 )", -- "Confidentiality: property that information is not made available or disclosed to unauthorized individuals, entities, or processes
\n (source: ISO 27000-2018 )"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONFIGURATION--ITEM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "part of the system that must be engineered, produced or bought, duplicated as much as it is used in the system and \n\n assembled with others in order to build a copy of the system", -- "part of the system that must be engineered, produced or bought, duplicated as much as it is used in the system and
\n assembled with others in order to build a copy of the system"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONFIGURATION--MANAGEMENT--PROCESS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Configuration Management Process captures all concrete activities along the complete configuration management chain: from the Building Block realisation (by the Building Block Supplier(s)), to the integration into a specific System Instance (by the Integrator(s)), to the distribution to the field (by the Operator), and the actual activation (going into operation) in the field (it includes also on a train). The Configuration Management Process is a solution agnostic term that collects all activities needed for the Configuration Management.", -- "The Configuration Management Process captures all concrete activities along the complete configuration management chain: from the Building Block realisation (by the Building Block Supplier(s)), to the integration into a specific CCS System Instance (by the Integrator(s)), to the distribution to the field (by the Operator), and the actual activation (going into operation) in the field (it includes also on a train). The Configuration Management Process is a solution agnostic term that collects all activities needed for the Configuration Management."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONFIGURATION--MANAGEMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Configuration Management refers to the management of all Configuration Items of a physical instance of a System (e.g. trains or trackside CCS). From a process point of view, it covers activities along the complete chain, from the Building Block Supplier(s) to the Integrators, the Operator, and the actual Deployment being operational.", -- "A discipline applying technical and administrative direction and surveillance to identify and document the functional and physical characteristics of a configuration item, control change to those characteristics, record and report change processing and implementation status and verify compliance with specified requirements. (3)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONFIGURATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Description of a collection of model elements, either available or unavailable in a given context. A context can be a mode, a \n\nstate or a combination of both.", -- "The structuring and interconnecting of the hardware and software of a system for its intended application."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONSOLIDATED--GLOSSARY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A SPPR-5436 - Lexical Glossary is called consolidated if all contained items are not contradictory nor ambiguous toward other glossaries of System Pillar. All possible ambiguities are resolved by means of context information added to the definitions. \n\nA consolidated glossary provides a safe basis for the context underlying its namespace. This supports efficient communication in expert groups. \n\nSee SPPR-5313 - Consolidate the glossary items.", -- "A SPPR-5436 - Lexical Glossary is called consolidated if all contained items are not contradictory nor ambiguous toward other glossaries of System Pillar. All possible ambiguities are resolved by means of context information added to the definitions.
\nA consolidated glossary provides a safe basis for the context underlying its namespace. This supports efficient communication in expert groups.
\nSee SPPR-5313 - Consolidate the glossary items."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONSTRAINT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Constraints are requirements that limit the solution space beyond what is necessary to meet the given functional requirements and quality (or non-functional) requirements.\n\n Constraints should be classified according to its nature: Technical, Legal, Organisational, Stakeholders, Cultural, Enviromental - e.g. Project Requirements and SEMP related rules are organisational constraints -.\n\n\n\n 'Constraint' for requirement management (this definition) is not strictly the same as a model element 'constraint' used in Capella modelling, which is a "limitation of applicabilty of a design workitem" within a specific model view or perspective. See also from SPPR-2205 - P9.6 Explain engineering content with helper workitems : "A Constraint is typically linked to model elements like processes or functional chains. It limits limits the applicability of something or defines conditions for something." """, -- "Limitation of applicabilty of a design workitem"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONTROL-COMMAND--AND--SIGNALLING\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Control-Command and Signalling", -- "Commission Regulation (EU) 2016/919 of 27 May 2016 on the technical specification for interoperability relating to the ‘control-command and signalling’ subsystems of the rail system in the European Union"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CONTROLLER--UNIT--THE--CONTROLLER--UNIT--IS--A--HARDWARE--COMPONENT--WHICH--EMBEDS--LOGICAL\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Controller Unit\n\n The Controller Unit is a hardware component which embeds logical controller(s). There may be only one Hardware or distributed to several HMI elements.", -- "Controller Unit
\n The Controller Unit is a hardware component which embeds logical controller(s). There may be only one Hardware or distributed to several HMI elements."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CORRECTIVE--MAINTENANCE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Maintenance carried out after fault detection to effect restoration \n\n \n\nNote 1 to entry: Corrective maintenance of software invariably involves some modification.\n\n [SOURCE: IEC 60050-192:2015, 192-06-06]", -- "Maintenance carried out after fault detection to effect restoration
\n
\nNote 1 to entry: Corrective maintenance of software invariably involves some modification.
\n [SOURCE: IEC 60050-192:2015, 192-06-06]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CROSS-ACCEPTANCE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Satus achieved by a product that has been accepted by one authority to the relevant standards and is \n\nacceptable to other authorities without the necessity for further assessment, see [IEC 60050-821:2017,{comment:1335} 821-12-15].", -- "The status achieved by a product that has been accepted by one Authority to the relevant European Standards and is acceptable to other Authorities without the necessity for further assessment. (4)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CSM-ALSP\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Common Safety Methods for assessing the safety level and the safety performance of railway operators\n\n[SOURCE: RECOMMENDATION ERA1219 OF THE EUROPEAN UNION AGENCY FOR RAILWAYS]", -- "Common Safety Methods for assessing the safety level and the safety performance of railway operators
\n[SOURCE: RECOMMENDATION ERA1219 OF THE EUROPEAN UNION AGENCY FOR RAILWAYS]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:CUSTOMER\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "a customer is an entity who buys and owns railway equipments and services from manufacturers (also called supplier) or engineering companies (e.g. Rus, IMs).", -- "Is the entity which has issued the consignment note to the Lead RU."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DANGER--ZONE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The area in the trackside in which the track path shall be uninterrupted and unobstructed at the time a train runs over it.{comment:101}\n\n\n\n (image: diagram\_20231212-1333.02592.mxg.svg) \n\n Note as a representation, it has the dimensions of the trackside asset (within its boundaries).", -- "The area in the trackside in which the track path shall be unobstructed at the time a train runs over it.{comment:101}
\n
\n Note as a representation, it has the dimensions of the trackside asset (within its boundaries)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DATA--MODEL--LAYER\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Note: informelle Gruppierung im Modell (analog zur RCA tiers), für Kommunikation/Verständnis\n\nA data model layer offers a view of the information as needed by, and as limited by a functional domain such as topology, geometry, signalling, gauge, etc.", -- "Note: informelle Gruppierung im Modell (analog zur RCA tiers), für Kommunikation/Verständnis
\nA data model layer offers a view of the information as needed by, and as limited by a functional domain such as topology, geometry, signalling, gauge, etc."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DEFINITION\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "ARCADIA (Architecture Analysis & Design Integrated Approach) is a system and software architecture engineering method based on architecture-centric and model-driven engineering activities. Main resources about ARCADIA can be found on the official websites: https://www.eclipse.org/capella/arcadia-reference.html \n\n \n\n (image: 3-1-screenshot-20230107-163323.png)", -- "ARCADIA (Architecture Analysis & Design Integrated Approach) is a system and software architecture engineering method based on architecture-centric and model-driven engineering activities. Main resources about ARCADIA can be found on the official websites: https://www.eclipse.org/capella/arcadia-reference.html
\n
\n (image: 1-screenshot-20230107-163323.png)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DELIVERABLE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An input or output of a task that crosses the process boundaries.\n\nAny unique and verifiable product, result, or capability to perform a service that must be produced to complete a process, phase, or project. (e.g. Requirement Specification)", -- "An input or output of a task that crosses the process boundaries.
\nAny unique and verifiable product, result, or capability to perform a service that must be produced to complete a process, phase, or project. (e.g. Requirement Specification)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DESK--AREA--DESK--AREA--IS--A--LOCATION--ATTRIBUTE--LEFT--CENTER---ASSOCIATED--TO--HMI\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Desk Area\n\n Desk Area is a location attribute (left, center...) associated to HMI Element for TDS Controller to allocate elements to a View.", -- "Desk Area
\n Desk Area is a location attribute (left, center...) associated to HMI Element for TDS Controller to allocate elements to a View."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DESK--DISPLAY--AREA--A--ZONE--DISPLAYING--A--PIECE--OF--VISUAL--INFORMATION--OF--PARTICULAR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Desk Display Area\n\n A Zone displaying a piece of visual information of particular system and defined by a size (in cells) and an absolute position (x ,y, z axes). It is more commonly named Area in this specification.", -- "Desk Display Area
\n A Zone displaying a piece of visual information of particular system and defined by a size (in cells) and an absolute position (x ,y, z axes). It is more commonly named Area in this specification."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DESK--INSIDE--A--CAB--THE--SET--OF--OPERATING--CONTROLS%2A--WHICH--IS--DEDICATED--TO--PREFERR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Desk\n\n Inside a cab, the set of operating controls\*, which is dedicated to preferred movements in a given direction (i.e. forward movements, in which visibility from the cab is provided to the driver).\n\n Exception: some single cab locomotives are fitted with one single desk, allowing normal movements in both directions.\n\n\n\n \*set of operating controls: screens, buttons, traction/brake lever, direction controller, radio control, switches, …Desk", -- "Desk
\n Inside a cab, the set of operating controls\*, which is dedicated to preferred movements in a given direction (i.e. forward movements, in which visibility from the cab is provided to the driver).
\n Exception: some single cab locomotives are fitted with one single desk, allowing normal movements in both directions.
\n
\n \*set of operating controls: screens, buttons, traction/brake lever, direction controller, radio control, switches, …Desk"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DEVELOPMENT--TASK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Take spec, build system\n\n\* Usually starts on CENELEC P5\n\n\* Bottom of CENELEC “V”", -- "\* Take spec, build system
\n\* Usually starts on CENELEC P5
\n\* Bottom of CENELEC “V”"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DEVICE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Device{comment:36}\n\n A physical entity performing a predefined (set of) task(s). It consists of software integrated on a hardware.", -- "Device{comment:36}
\n A physical entity performing a predefined (set of) task(s). It consists of software integrated on a hardware."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DIAGNOSTICS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Diagnostics{comment:95} : Diagnostics is the assessment{comment:1} of health and performance of an asset or a group of assets. Furthermore, the diagnostic system also provides all information of single components in the field like: software version, parametrisation file version, firmware version, hardware version, manufacturer part number, manufacturer serial number,{comment:35} ID in the field (e.g. NID\_ENGINE), cumulated hours in operation, IP address, etc. All this data is being used for analysis purposes.", -- "Diagnostics is the assessment of health and performance of an asset or a group of assets. Furthermore, the diagnostic system also provides all information of single components in the field like: software version, parametrisation file version, firmware version, hardware version, manufacturer part number, manufacturer serial number, ID in the field (e.g. NID\_ENGINE), cumulated hours in operation, IP address, etc. The latter is being used for analysis purposes.{comment:168}
\n{comment:131}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:DISPLAY--PANEL--GLASS--LCD--SHOWING--PIXELS--WITHOUT--CONTROLLER\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Display Panel\n\n Glass (LCD) showing pixels without controller.", -- "Display Panel
\n Glass (LCD) showing pixels without controller."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ENGAGED--AREA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The equivalent area in the trackside in which (controllable) trackside assets shall be restricted from changing its correlation.\n\n \n\nIn other words, whilst the SPT2OD-6035 - Missing cross-reference is occupied, the safety system shall not allow any request that could lead to the unsafe operation of a (controllable) trackside asset to be executed.\n\n {comment:40}\n\n (image: diagram\_20231212-1351.17308.mxg.svg) \n\n Note as a representation, as a minimum, it has the equivalent dimensions of Danger Zone + Operating Time (+ applicable Margin), where:\n\n \n\n\* 'Operation time' represents the (best case){comment:60} minimum period of time required for a controllable trackside asset to complete its operation from one defined state to another.\n\n\* 'Margin' could refer to processing/communication time, etc.", -- "The equivalent area in the trackside in which (controllable) trackside assets shall be restricted from changing its correlation.
\n
\nIn other words, whilst the SPT2OD-6035 - Missing cross-reference is occupied, the safety system shall not allow any request that could lead to the unsafe operation of a (controllable) trackside asset to be executed.{comment:40}
\n
\n Note as a representation, as a minimum, it has the equivalent dimensions of Danger Zone + Operating Time (+ applicable Margin), where:
\n
\n\* 'Operation time' represents the (best case){comment:60} minimum period of time required for a controllable trackside asset to complete its operation from one defined state to another.
\n\* 'Margin' could refer to processing/communication time, etc."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ENGINEERING--DATA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Engineering Data is created based on the Engineering Input Data (IM Data) but generic (IM-unspecific). Typically, the data are not adapted to cope with specific views demanded by different Consuming Systems. The Engineering Data contains all the base data (i.e., track topology and topography) for deriving the Configuration Data during the compile process. Besides providing base data for the Configuration Data generation, the Engineering Data shall also cover the needs for the configuration of Consuming Systems (e.g., Parameter Data). The Engineering Data must fulfil engineering rules that are influenced by requirements of the Configuration Data model and the Consuming Systems.\n\n The Engineering Data contains only the updated resulting data (i.e., not several variants/versions of the same track) that is needed for the next compiling and provisioning of Configuration Data and operation at a certain point in time in the Consuming Systems.", -- "The Engineering Data as part of the SPT2TS-2040 - CCS/TMS Data Model contains all the base data (i.e.,{comment:19} track topology, track geometry, track asset configuration) for compiling the next version(s) of use case-specific Domain Data. The standardized Engineering Data comprehensively covers the data needs for the SERA in the scope of the System Pillar (i.e. radio-based ETCS only). Specific data needed for migration is out of the scope of SPT2TS-2040 - CCS/TMS Data Model."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ENGINEERING--DATA\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Engineering Data as part of the SPT2TS-2040 - CCS/TMS Data Model contains all the base data (i.e.,{comment:19} track topology, track geometry, track asset configuration) for compiling the next version(s) of use case-specific Domain Data. The standardized Engineering Data comprehensively covers the data needs for the SERA in the scope of the System Pillar (i.e. radio-based ETCS only). Specific data needed for migration is out of the scope of SPT2TS-2040 - CCS/TMS Data Model.", -- "Engineering data are measurements, design data and derived data that parametrise the railway system, i.e. configuration information."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ENGINEERING--INPUT--DATA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Refers to data from Infrastructure Manager (IM) specific digital sources required for engineering, such as:\n\n\* Track layout (nominal geometry of the respective construction phase\n\n\* Track Assets (points, signals, train detection elements, etc.)\n\n\* Properties (speeds, gradients, etc.)\n\n\* Structures (platform, tunnel, etc.)\n\n\* Logical data such as trackside train detection sections (if still available)\n\n\* Acquisition Data\n\n\* Configuration Data for track objects\n\n\* Others (placeholder to include other possible data from IM)", -- "Refers to data for specific digital sources required for engineering, such as
\n\* Track layout (nominal geometry of the respective construction phase)
\n\* Track Assets (points, signals, train detection elements, etc.)
\n\* Properties (speeds, gradients, etc.)
\n\* Structures (platform, tunnel, etc.)
\n\* Logical data such as trackside train detection sections (if still available)
\n\* Acquisition Data
\n\* Configuration Data for track objects
\n\* Train specific data like ETCS Braking curves
\n\* Any other data required for CCS/TMS system configuration"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ENTERPRISE--SHARED--SERVICES\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A collection of standardized interface implementations of central security and IT communication functions in a back-office environment.\n\nExamples are Security Incident and Event Management System (SIEM), Intrusion Detection System, PKI Certificate Authority, Corporate Directory, Asset Management, DNS. These services are typically accessible for the automation network via controlled communication paths (e.g. DMZ). The interfaces from the Shared Security Services to the Enterprise Services are identified by ESI-<Service name>.\n\nEnterprise Shared Services are typically 3rd-party components not dedicated to the rail environment. Therefore the realization of the Enterprise Shared Services may use other security requirements than the Secure Component Specification. Recommended security specification are ISO 27..., NIST 800-53, IEC 62443-4-2,...", -- "A collection of standardized interface implementations of central security and IT communication functions in a back-office environment.
\nExamples are Security Incident and Event Management System (SIEM), Intrusion Detection System, PKI Certificate Authority, Corporate Directory, Asset Management, DNS. These services are typically accessible for the automation network via controlled communication paths (e.g. DMZ). The interfaces from the Shared Security Services to the Enterprise Services are identified by ESI-<Service name>."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ESSENTIAL--FUNCTION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "function or capability that is required to maintain health, safety, the environment and availability for the equipment under control \n\nNote 1 to the entry: Essential functions include, but are not limited to, the safety instrumented function (SIF), the control function and the ability of the operator to view and manipulate the equipment under control. The loss of essential functions is commonly termed loss of protection, loss of control and loss of view respectively. In some industries additional functions such as history may be considered essential.", -- "function or capability that is required to maintain health, safety, the environment and availability for the equipment under control
\nNote 1 to the entry: Essential functions include, but are not limited to, the safety instrumented function (SIF), the control function and the ability of the operator to view and manipulate the equipment under control. The loss of essential functions is commonly termed loss of protection, loss of control and loss of view respectively. In some industries additional functions such as history may be considered essential."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ESSENTIAL--FUNCTION\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "function or capability that is required to maintain health, safety, the environment and availability for the equipment under control \n\nNote 1 to the entry: Essential functions include, but are not limited to, the safety instrumented function (SIF), the control function and the ability of the operator to view and manipulate the equipment under control. The loss of essential functions is commonly termed loss of protection, loss of control and loss of view respectively. In some industries additional functions such as history may be considered essential.", -- "function or capability that is required to maintain health, safety, the environment and availability for the equipment under control
\nNote 1 to the entry: Essential functions include, but are not limited to, the safety instrumented function (SIF), the control function and the ability of the operator to view and manipulate the equipment under control. The loss of essential functions is commonly termed loss of protection, loss of control and loss of view respectively. In some industries additional functions such as history may be considered essential."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:EU-RAILGOVERNING--BOARD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "EU-RailGoverning Board\n\n Final decision body, where a decisions are adopted a majority of at least 55% of the votes", -- "EU-RailGoverning Board
\n Final decision body, where a decisions are adopted a majority of at least 55% of the votes"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:EUROPEAN--RAIL--TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "European Rail Traffic Management System", -- "Signalling and operation management system encompassing ETCS for the Control Command, ATO for the Automatic Train Operation and FRMCS and/or GSM-R for voice and data communication. FRMCS and/or GSM-R are/is used as radio bearer for ETCS and ATO."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "European Train Control System (ETCS) is a cab-signalling system that incorporates automatic train protection. (ERA definition)", -- "The Control Command part of ERTMS."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:EUROPEAN--TRAIN--CONTROL--SYSTEM\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "European Train Control System (ETCS) is a cab-signalling system that incorporates automatic train protection (ERA definition).\n\nETCS in the frame of SERA will support the following Levels: \n\n\* L2 with fixed train detection (classic L2 with trackside detection (track circuits, axle-counters, …))\n\n\* L2 with hybrid train detection (virtual fixed or moving blocks with trackside detection (axle-counters, …)) – formerly known as Hybrid L3\n\n\* L2 with virtual fixed or moving blocks and train integrity (no trackside detection) – formerly known as pure L3", -- "European Train Control System"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:EXTENDED--VIEW--VIEW--DISPLAYED--ON--MORE--THAN--ONE--DISPLAY--PANEL\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Extended View\n\n View displayed on more than one Display Panel.", -- "Extended View
\n View displayed on more than one Display Panel."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:EXTERNAL--BUTTON--A--BUTTON--WHICH--IS--NOT--DIRECTLY--MANAGED--BY--TDS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "External Button\n\n A button which is not directly managed by TDS.", -- "External Button
\n A button which is not directly managed by TDS."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAIL-SAFE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "able to enter or remain in a safe state in the event of a failure\n\n[SOURCE: IEC 60050-821:2017 , 821-01-10]", -- "A design philosophy which results in any expected failure maintaining or placing the equipment in a safe state."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAIL-SAFE\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "able to enter or remain in a safe state in the event of a failure\n\n[821-01-10 ]", -- "able to enter or remain in a safe state in the event of a failure
\n[SOURCE: IEC 60050-821:2017 , 821-01-10]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAILURE--CAUSE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "set of circumstances that leads to failure\n\nNote 1 to entry: A failure cause may originate during specification, design, manufacture, installation, operation or maintenance of an item.\n\n[SOURCE: IEC 60050.192:2015, 192-03-11]", -- "set of circumstances that leads to failure
\nNote 1 to entry: A failure cause may originate during specification, design, manufacture, installation, operation or maintenance of an item.
\n[SOURCE: IEC 60050.192:2015, 192-03-11]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAILURE--MODE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Manner in which failure occurs.\n\n Note 1 to entry: A failure mode may be defined by the function lost or other state transition that occurred.\n\n[SOURCE: IEC 60050-192:2015, 192-03-17]", -- "Manner in which failure occurs.
\n Note 1 to entry: A failure mode may be defined by the function lost or other state transition that occurred.
\n[SOURCE: IEC 60050-192:2015, 192-03-17]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAILURE--RATE--\_821-12-21\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "limit of the ratio of the conditional probability that the instant of time, T, of a failure of a product falls within a given time interval (t, t + Δt) and the duration of this interval, Δt, when Δt tends towards zero, given that the item is in an up state at the start of the time interval\n\n Note 1 to entry: For applications where distance travelled or number of cycles of operation is more relevant than time then the unit of time can be replaced by the unit of distance or cycles, as appropriate.\n\n\n\n Note 2 to entry: The term “failure rate” is often used in the sense of “mean failure rate” defined in IEV 192-05-07.\n\n [SOURCE: IEC 62278:2002, 3.14, modified]", -- "limit of the ratio of the conditional probability that the instant of time, T, of a failure of a product falls within a given time interval (t, t + Δt) and the duration of this interval, Δt, when Δt tends towards zero, given that the item is in an up state at the start of the time interval
\n Note 1 to entry: For applications where distance travelled or number of cycles of operation is more relevant than time then the unit of time can be replaced by the unit of distance or cycles, as appropriate.
\n
\n Note 2 to entry: The term “failure rate” is often used in the sense of “mean failure rate” defined in IEV 192-05-07.
\n [SOURCE: IEC 62278:2002, 3.14, modified]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAILURE--RATE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "limit of the ratio of the conditional probability that the instant of time, T, of a failure of a product falls within a given time interval (t, t + Δt) and the duration of this interval, Δt, when Δt tends towards zero, given that the item is in an up state at the start of the time interval\n\n Note 1 to entry: For applications where distance travelled or number of cycles of operation is more relevant than time then the unit of time can be replaced by the unit of distance or cycles, as appropriate.\n\n\n\n Note 2 to entry: The term “failure rate” is often used in the sense of “mean failure rate” defined in IEV 192-05-07.\n\n [IEC 60050-821, 821-12-21]", -- "limit of the ratio of the conditional probability that the instant of time, T, of a failure of a product falls within a given time interval (t, t + Δt) and the duration of this interval, Δt, when Δt tends towards zero, given that the item is in an up state at the start of the time interval
\n Note 1 to entry: For applications where distance travelled or number of cycles of operation is more relevant than time then the unit of time can be replaced by the unit of distance or cycles, as appropriate.
\n
\n Note 2 to entry: The term “failure rate” is often used in the sense of “mean failure rate” defined in IEV 192-05-07.
\n [IEC 60050-821, 821-12-21]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAILURE--RATE\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "limit of the ratio of the conditional probability that the instant of time, T, of a failure of a product falls within a given time interval (t, t + Δt) and the duration of this interval, Δt, when Δt tends towards zero, given that the item is in an up state at the start of the time interval\n\n Note 1 to entry: For applications where distance travelled or number of cycles of operation is more relevant than time then the unit of time can be replaced by the unit of distance or cycles, as appropriate.\n\n\n\n Note 2 to entry: The term “failure rate” is often used in the sense of “mean failure rate” defined in IEV 192-05-07.\n\n [821-12-21][IEC 62278:2002, 3.14, modified]", -- "limit of the ratio of the conditional probability that the instant of time, T, of a failure of a product falls within a given time interval (t, t + Δt) and the duration of this interval, Δt, when Δt tends towards zero, given that the item is in an up state at the start of the time interval
\n Note 1 to entry: For applications where distance travelled or number of cycles of operation is more relevant than time then the unit of time can be replaced by the unit of distance or cycles, as appropriate.
\n
\n Note 2 to entry: The term “failure rate” is often used in the sense of “mean failure rate” defined in IEV 192-05-07.
\n [821-12-21][IEC 62278:2002, 3.14, modified]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAILURE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ loss of ability to perform as required \n\n Note 1 to entry: A failure of an item is an event that results in a fault of that item: see "fault" (IEV 192-04-01).\n\nNote 2 to entry: Qualifiers, such as catastrophic, critical, major, minor, marginal and insignificant, can be used to categorize failures according to the severity of consequences, the choice and definitions of severity criteria depending upon the field of application.\n\nNote 3 to entry: Qualifiers, such as misuse, mishandling and weakness, can be used to categorize failures according to the cause of failure.\n\n [SOURCE: IEC 60050-192:2015, 192-03-01] """, -- "Effect of an error on the intended service."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAULT--%3COF--AN--ITEM%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "inability to perform as required, due to an internal state\n\nNote 1 to entry: A fault of an item results from a failure, either of the item itself, or from a deficiency in an earlier stage of the life cycle, such as specification, design, manufacture or maintenance. See latent fault (192-04-08).{comment:215}\n\nNote 2 to entry: Qualifiers, such as specification, design, manufacture, maintenance or misuse, may be used to indicate the cause of a fault.\n\nNote 3 to entry: The type of fault may be associated with the type of associated failure, e.g. wear-out fault and wear-out failure.\n\nNote 4 to entry: The adjective “faulty” designates an item having one or more faults.\n\n[SOURCE: IEC 60050-192:2015, 192-04-01]", -- "inability to perform as required, due to an internal state
\nNote 1 to entry: A fault of an item results from a failure, either of the item itself, or from a deficiency in an earlier stage of the life cycle, such as specification, design, manufacture or maintenance. See latent fault (192-04-08).{comment:215}
\nNote 2 to entry: Qualifiers, such as specification, design, manufacture, maintenance or misuse, may be used to indicate the cause of a fault.
\nNote 3 to entry: The type of fault may be associated with the type of associated failure, e.g. wear-out fault and wear-out failure.
\nNote 4 to entry: The adjective “faulty” designates an item having one or more faults.
\n[SOURCE: IEC 60050-192:2015, 192-04-01]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAULT--CORRECTION--TIME\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "part of active corrective maintenance time taken to perform fault correction \n\n[SOURCE: IEC 60050-192:2015,192-07-14]", -- "part of active corrective maintenance time taken to perform fault correction
\n[SOURCE: IEC 60050-192:2015,192-07-14]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAULT--DETECTION--TIME\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "DEPRECATED: undetected fault time \n\ntime interval between failure and detection of the resulting fault \n\n[SOURCE: IEC 60050-192:2015,192-07-11]", -- "Time span that begins at the instant when a fault occurs and ends when the existence of the fault is detected."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAULT--LOCALIZATION--TIME\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "DEPRECATED: fault location time \n\npart of active corrective maintenance time taken to complete fault localization \n\n[SOURCE: IEC 60050-192:2015,192-07-18]", -- "DEPRECATED: fault location time
\npart of active corrective maintenance time taken to complete fault localization
\n[SOURCE: IEC 60050-192:2015,192-07-18]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FAULT--TREE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "logic diagram showing the faults of sub items, external events, or combinations thereof, which cause a predefined, undesired event\n\n[SOURCE: IEC 60050-192:2015, 192-11-07]", -- "logic diagram showing the faults of sub items, external events, or combinations thereof, which cause a predefined, undesired event
\n[SOURCE: IEC 60050-192:2015, 192-11-07]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FEATURE--SUMMARY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The ARCADIA method: \n\n\* Covers all structured engineering activities, from capturing customer operational needs to system integration verification validation (IVV);\n\n\* Takes into account multiple engineering levels and their effective collaboration (system, subsystem, software, hardware, etc.);\n\n\* Integrates co-engineering with specialty engineering (safety, security, performance, interfaces, logistics ...) and IVV;\n\n\* Provides the ability not only to share descriptive models but also to collaboratively validate properties of the definition and the architecture;\n\n\* Is field-tested in full-scale industrial applications, and is currently deployed on dozens of major projects in several countries and divisions of Thales.", -- "The ARCADIA method:
\n\* Covers all structured engineering activities, from capturing customer operational needs to system integration verification validation (IVV);
\n\* Takes into account multiple engineering levels and their effective collaboration (system, subsystem, software, hardware, etc.);
\n\* Integrates co-engineering with specialty engineering (safety, security, performance, interfaces, logistics ...) and IVV;
\n\* Provides the ability not only to share descriptive models but also to collaboratively validate properties of the definition and the architecture;
\n\* Is field-tested in full-scale industrial applications, and is currently deployed on dozens of major projects in several countries and divisions of Thales."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FIS-----FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "implicit-from-entry-label: FIS - Functional Interface Specification", -- "FIS - Functional Interface Specification"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FMECA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ failure modes, effects and criticality analysis\n\nquantitative or qualitative method of analysis that involves failure modes and effects analysis together with a consideration of the probability of the failure mode occurrence and the severity of the effects\n\nNote 1 to entry: The term "fault mode, effects and criticality analysis" in IEC 60050-191:1990 (now withdrawn; replaced by IEC 60050-192:2015) is deprecated, since a fault (192-04-01) is a state and cannot logically have a mode, whereas a failure mode (192-03-17) is a change of state.\n\n[SOURCE: IEC 60050-192:2015, 192-11-06]\n\n\n\n Note 2 to entry: FMEA is a systematic method of evaluating an item or process to identify the ways in which it might potentially fail, and the effects of the mode of failure upon the performance of the item or process and on the surrounding environment and personnel.\n\nFailure modes may be prioritized according to their importance. The prioritization can be based on a ranking of the severity alone, or this can be combined with other measures of importance. When failure modes are prioritized, the process is referred to as failure modes, effects and criticality analysis (FMECA). """, -- """ failure modes, effects and criticality analysis
\nquantitative or qualitative method of analysis that involves failure modes and effects analysis together with a consideration of the probability of the failure mode occurrence and the severity of the effects
\nNote 1 to entry: The term "fault mode, effects and criticality analysis" in IEC 60050-191:1990 (now withdrawn; replaced by IEC 60050-192:2015) is deprecated, since a fault (192-04-01) is a state and cannot logically have a mode, whereas a failure mode (192-03-17) is a change of state.
\n[SOURCE: IEC 60050-192:2015, 192-11-06]
\n
\n Note 2 to entry: FMEA is a systematic method of evaluating an item or process to identify the ways in which it might potentially fail, and the effects of the mode of failure upon the performance of the item or process and on the surrounding environment and personnel.
\nFailure modes may be prioritized according to their importance. The prioritization can be based on a ranking of the severity alone, or this can be combined with other measures of importance. When failure modes are prioritized, the process is referred to as failure modes, effects and criticality analysis (FMECA). """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FMECA\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Failure modes and effects analysis (FMEA) is a systematic method of evaluating an item or process to identify the ways in which it might potentially fail, and the effects of the mode of failure upon the performance of the item or process and on the surrounding environment and personnel.\n\nFailure modes may be prioritized according to their importance. The prioritization can be based on a ranking of the severity alone, or this can be combined with other measures of importance. When failure modes are prioritized, the process is referred to as failure modes, effects and criticality analysis (FMECA).", -- "Failure modes and effects analysis (FMEA) is a systematic method of evaluating an item or process to identify the ways in which it might potentially fail, and the effects of the mode of failure upon the performance of the item or process and on the surrounding environment and personnel.
\nFailure modes may be prioritized according to their importance. The prioritization can be based on a ranking of the severity alone, or this can be combined with other measures of importance. When failure modes are prioritized, the process is referred to as failure modes, effects and criticality analysis (FMECA)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FOLLOW--A--TRACE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A trace (nodes/work items and their links) is a graph that works out one issue (e.g. one requirement) in the most efficient, complete and fast way, down to its operational and system implementation\n\n (image: 2-image2.png) \n\nFigure {caption:Figure}: Trace for a CBO requirement (red point in the middle) in an ALM System\n\n \n\nSystem Levels are just “areas of team responsibilities” for working on parts of the graph \n\n\* System Level 1 / 2 = teams … = Work item detail level …\n\n\* System Level 3 = teams … = Work item detail level …\n\n\* System Level 4 = teams … = Work item detail level …\n\n\* System Level 5 = teams … = Work item detail level …\n\nAssigning a work item to a System Level just means: Assigning them to a team.\n\n No good idea: Design every System Level with everything that a real-world system would need. Systems on Level 1-4 are no real-world systems, they just structure the work assignment.\n\n Trace Example – just one “branch”: The reality is not puristic, it is like a “neuron-mesh”\n\nA. SL2: Requirement “High, scalable, and flexible transport capacity” >>\n\nB. SL3: Process “efficient ATP for high density lines” >>\n\nC. SL4: Requirement “Precise and frequent localisation” in the train >>\n\nD. SL3: Architecture (functions) for a high- performance localisation System >>\n\nE. SL5: Interface requirements to deliver a map to the train >>\n\nF. SL5: Requirement that Traffic CS delivers a reliable map >> ….\n\n \n\n Think in “good complete traces”, and do not “fill all System Levels” (!)\n\n--> It is just important that “traces are complete, good and correct”, \n\n with work items assigned to the right team level\n\n--> What System Levels are NOT for: Being the basic scheme for everything \n\n\* Creating a break-down element on every System Level --> this does not work and requires too much effort\n\n\* Exception: The work item “system” is broken down on every level, but for example interfaces or logical components only exist in System Level 5)\n\nWhen do we need “completion” on System Levels? Sometimes it is necessary.\n\n Example 1: Safety analysis for “Assure that all CCS processes are safe” \n\n\* All operational processes need to be listed and analysed on System level 3 (OA)\n\n\* Out of this all traces have to be analysed to understand the hazards and risks\n\nBut this does not mean that this is also done for System Level 1,2, or 4.\n\n Just the operational design team in Task 2 has to do this.\n\n Example 2: Systems on System Level 5 (“standard products”) \n\n\* Complete description how to install and use them (processes)\n\n\* Complete functional description\n\n\* Complete system and interface description\n\nHow to follow “traces”\n\nFollowing a trace means to break down work items more and more. Every breakdown is not necessarily “homogenous”. One breakdown step (indicative):\n\n \n\n (image: 1-screenshot-20221229-205247.png) \n\n \n\nA break down step follows this workflow (for the assigned team) \n\n\* Assess if work item is accepted and makes sense. If not, reject and forward work item to a functional team\n\n\* Analyse, work out, and refine a work item; change status when finished\n\n\* Draft and link the derived work items, set status to “proposed”\n\n\* Propose their assignment to a team\n\n\* Assigned team accepts or forwards the derived work item to a functional team.\n\nHow do traces start, how to reach “completeness”?\n\nA. New traces start from \n\n\* Any input of the stakeholders\n\n\* Common Business Objectives (CBO)\n\n\* A System Level 2/3 mission and the needed operational capabilities, derived operational scenarios and their operational requirements\n\n\* Any input inside of the System Pillar team – if a backward linking to CBO or operational missions/capabilities is possible or stakeholder (steering group) agree\n\nCompleteness is reached if for all of these (decided) inputs a trace down to the implementation exists with a valid trace.\n\nB. A trace is valid if \n\n\* …it is connected up to a decided demand (A.)\n\n\* …it is connected down to an implementation in operational processes and System Level 5.\n\n\* … all links between work items of the trace are valid (correct derivation)\n\nThe status of all traces will be visible at any time via the ALM.", -- "A trace (nodes/work items and their links) is a graph that works out one issue (e.g. one requirement) in the most efficient, complete and fast way, down to its operational and system implementation
\n (image: 2-image2.png)
\nFigure {caption:Figure}: Trace for a CBO requirement (red point in the middle) in an ALM System
\n
\nSystem Levels are just “areas of team responsibilities” for working on parts of the graph
\n\* System Level 1 / 2 = teams … = Work item detail level …
\n\* System Level 3 = teams … = Work item detail level …
\n\* System Level 4 = teams … = Work item detail level …
\n\* System Level 5 = teams … = Work item detail level …
\nAssigning a work item to a System Level just means: Assigning them to a team.
\n No good idea: Design every System Level with everything that a real-world system would need. Systems on Level 1-4 are no real-world systems, they just structure the work assignment.
\n Trace Example – just one “branch”: The reality is not puristic, it is like a “neuron-mesh”
\nA. SL2: Requirement “High, scalable, and flexible transport capacity” >>
\nB. SL3: Process “efficient ATP for high density lines” >>
\nC. SL4: Requirement “Precise and frequent localisation” in the train >>
\nD. SL3: Architecture (functions) for a high- performance localisation System >>
\nE. SL5: Interface requirements to deliver a map to the train >>
\nF. SL5: Requirement that Traffic CS delivers a reliable map >> ….
\n
\n Think in “good complete traces”, and do not “fill all System Levels” (!)
\n--> It is just important that “traces are complete, good and correct”,
\n with work items assigned to the right team level
\n--> What System Levels are NOT for: Being the basic scheme for everything
\n\* Creating a break-down element on every System Level --> this does not work and requires too much effort
\n\* Exception: The work item “system” is broken down on every level, but for example interfaces or logical components only exist in System Level 5)
\nWhen do we need “completion” on System Levels? Sometimes it is necessary.
\n Example 1: Safety analysis for “Assure that all CCS processes are safe”
\n\* All operational processes need to be listed and analysed on System level 3 (OA)
\n\* Out of this all traces have to be analysed to understand the hazards and risks
\nBut this does not mean that this is also done for System Level 1,2, or 4.
\n Just the operational design team in Task 2 has to do this.
\n Example 2: Systems on System Level 5 (“standard products”)
\n\* Complete description how to install and use them (processes)
\n\* Complete functional description
\n\* Complete system and interface description
\nHow to follow “traces”
\nFollowing a trace means to break down work items more and more. Every breakdown is not necessarily “homogenous”. One breakdown step (indicative):
\n
\n (image: 1-screenshot-20221229-205247.png)
\n
\nA break down step follows this workflow (for the assigned team)
\n\* Assess if work item is accepted and makes sense. If not, reject and forward work item to a functional team
\n\* Analyse, work out, and refine a work item; change status when finished
\n\* Draft and link the derived work items, set status to “proposed”
\n\* Propose their assignment to a team
\n\* Assigned team accepts or forwards the derived work item to a functional team.
\nHow do traces start, how to reach “completeness”?
\nA. New traces start from
\n\* Any input of the stakeholders
\n\* Common Business Objectives (CBO)
\n\* A System Level 2/3 mission and the needed operational capabilities, derived operational scenarios and their operational requirements
\n\* Any input inside of the System Pillar team – if a backward linking to CBO or operational missions/capabilities is possible or stakeholder (steering group) agree
\nCompleteness is reached if for all of these (decided) inputs a trace down to the implementation exists with a valid trace.
\nB. A trace is valid if
\n\* …it is connected up to a decided demand (A.)
\n\* …it is connected down to an implementation in operational processes and System Level 5.
\n\* … all links between work items of the trace are valid (correct derivation)
\nThe status of all traces will be visible at any time via the ALM."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FORM--FIT--FUNCTIONAL--INTERFACE--SPECIFICATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A FFFIS is the complete definition of an interface between functional or physical entities.\n\n The FFFIS includes:\n\n - FIS,\n\n - Electrical characteristics related to data,\n\n - communication protocol,\n\n - and including connector and plug.\n\n The FFFIS and accompanying documents (e.g. safety analysis) guarantees the interoperability but not the exchangeability of physical entities, see Subset-037 SPT2ARC-1620.", -- "A FFFIS is the complete definition of an interface between functional or physical entities.
\n The FFFIS includes:
\n - FIS,
\n - Electrical characteristics related to data,
\n - communication protocol,
\n - and including connector and plug.
\n The FFFIS and accompanying documents (e.g. safety analysis) guarantees the interoperability but not the exchangeability of physical entities, see Subset-037 SPT2ARC-1620."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FS-----FULLING--SUPERVISION--MODE--IN--ETCS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "FS - Fulling Supervision Mode in ETCS{comment:26}", -- "FS - Fulling Supervision Mode in ETCS"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FTA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "fault tree analysis\n\ndeductive analysis using fault trees\n\nNote 1 to entry: See also fault tree (192-11-07 SPPRAMSS-4464 - fault tree ).\n\n[SOURCE: IEC 60050-192:2015, 192-11-08]", -- "fault tree analysis
\ndeductive analysis using fault trees
\nNote 1 to entry: See also fault tree (192-11-07 SPPRAMSS-4464 - fault tree ).
\n[SOURCE: IEC 60050-192:2015, 192-11-08]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FULL--BACKWARDS--COMPATIBILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Full backward compatibility, also known as "complete backward compatibility," refers to a situation in which a newer version of software, hardware, or a system is not only compatible with the previous version but also ensures compatibility with all previous versions and features without exceptions. In other words, any software, data, or hardware that worked with older versions will work seamlessly and without any issues with the new version.\n\n\n\nWith full backward compatibility, users can transition to the latest version with confidence, knowing that they won't encounter any incompatibilities or disruptions.\n\n This level of compatibility often requires careful design and testing to ensure that all legacy functionalities and components are supported and function correctly in the newer version. """, -- """ Full backward compatibility, also known as "complete backward compatibility," refers to a situation in which a newer version of software, hardware, or a system is not only compatible with the previous version but also ensures compatibility with all previous versions and features without exceptions. In other words, any software, data, or hardware that worked with older versions will work seamlessly and without any issues with the new version.
\n
\nWith full backward compatibility, users can transition to the latest version with confidence, knowing that they won't encounter any incompatibilities or disruptions.
\n This level of compatibility often requires careful design and testing to ensure that all legacy functionalities and components are supported and function correctly in the newer version. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FUNCTION--CHECKOUT--TIME\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "part of active maintenance time taken to complete function checkout \n\n[SOURCE: IEC 60050-192:2015,192-07-16]", -- "part of active maintenance time taken to complete function checkout
\n[SOURCE: IEC 60050-192:2015,192-07-16]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FUNCTIONAL--CHAIN\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Is an ordered set of references to functions and the functional exchanges that link them, describing one possible path among all the paths forming the data-flow. Functional chains are used to describe the system behaviour in a particular usage context, to contribute to one or more capabilities. Each reference to a function or exchange inside the chain can be qualified by an expectation in the context of the chain (the value that an exchange item or a function attribute should take, for example).\n\n \n\n Furthermore: A functional chain also specifies constraints or expectations of precedence or anteriority via oriented sequence links. A set of functions and sequence links is a sequence. Control nodes can be defined between the sequence links, to express the parallelism or alternative between several sequences of functions, or, also the iteration or condition of a sequence to be realised.\n\n\n\nARCADIA talks only about a functional chain from system level onwards, in operational analysis, it is still called operational process, the methodology is the same for both, therefore no further distinction is made.", -- "Specific organisation of functions and functional exhcanges, forming one path among the set of all possible paths of system data flows. It describes either an expected behaviour of the system in a given context, or expresses non-functional properties on the path (such as latency, criticality, confidentiality, redundancy ...)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FUNCTIONAL--TEAM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ A Functional team includes the role owners of the same role. It organizes the work allocation and overall results for that role, including the workflows and working methods. \n\n \n\nThe name of the functional team has a “-F” at the end.\n\n \n\nThe functional teams form a matrix to the organisational units of the SP. \n\n \n\nIf an organisational unit has more persons with the same role, one of them can be delegated to the functional team as a "speaker". \n\n \n\nFunctional teams organise themselves internally. From "outside" (SP processes) the team is addressed as one actor. The worksplit in the functional teams is decided in the team. The functional teams act with the responsibilities and tasks defined by the role it represents. The functional team is lead and moderated by the participant from System Level 1/ (mostly people from the engineering services, see role allocation table). \n\n \n\nFunctional teams decide in consensus, or escalate to the coregroup. \n\n \n\nExample for the functional Team “REQ-F”\n\n \n\n (image: 1-Bild\_2.png) \n\n (image: 2-Grafik\_1.png) """, -- """ A Functional team includes the role owners of the same role. It organizes the work allocation and overall results for that role, including the workflows and working methods.
\n
\nThe name of the functional team has a “-F” at the end.
\n
\nThe functional teams form a matrix to the organisational units of the SP.
\n
\nIf an organisational unit has more persons with the same role, one of them can be delegated to the functional team as a "speaker".
\n
\nFunctional teams organise themselves internally. From "outside" (SP processes) the team is addressed as one actor. The worksplit in the functional teams is decided in the team. The functional teams act with the responsibilities and tasks defined by the role it represents. The functional team is lead and moderated by the participant from System Level 1/ (mostly people from the engineering services, see role allocation table).
\n
\nFunctional teams decide in consensus, or escalate to the coregroup.
\n
\nExample for the functional Team “REQ-F”
\n
\n (image: 1-Bild\_2.png)
\n (image: 2-Grafik\_1.png) """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FUNCTION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A function transforms several one or more input values to several one or more output values according to the function’s behaviour. The function’s behaviour is defined by one or multiple functional requirements, defining “what” the function is doing. Additional non-functional requirements attached to the function define the quality attributes of “how” (how safe, how accurate, how fast, how reliable, etc.) the function is performing the transformation.", -- "A function transforms several one or more input values to several one or more output values according to the function’s behaviour. The function’s behaviour is defined by one or multiple functional requirements, defining “what” the function is doing. Additional non-functional requirements attached to the function define the quality attributes of “how” (how safe, how accurate, how fast, how reliable, etc.) the function is performing the transformation.
\nSome non-functional requirements, e.g., on weight constraints or physical dimension constraints), will also be allocated to subsystems."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:FUNKTIONAL--TEAM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ A Functional team includes the role owners of the same role. It organizes the work allocation and overall results for that role, including the workflows and working methods. \n\nThe name of the functional team has a “-F” at the end.\n\nThe functional teams form a matrix to the organisational units of the SP. \n\nIf an organisational unit has more persons with the same role, one of them can be delegated to the functional team as a "speaker". \n\nFunctional teams organise themselves internally. From "outside" (SP processes) the team is addressedaddressed as one actor. The worksplit in the functional teams is decided in the team. The functional teams act with the responsibilities and tasks defined by the role it represents. The functional team is lead and moderated by the participant from System Level 1/ (mostly people from the engineering services, see role allocation table). \n\nFunctional teams decide in consensus, or escalate to the coregroup. \n\nExample for the functional Team “REQ-F” """, -- """ A Functional team includes the role owners of the same role. It organizes the work allocation and overall results for that role, including the workflows and working methods.
\nThe name of the functional team has a “-F” at the end.
\nThe functional teams form a matrix to the organisational units of the SP.
\nIf an organisational unit has more persons with the same role, one of them can be delegated to the functional team as a "speaker".
\nFunctional teams organise themselves internally. From "outside" (SP processes) the team is addressedaddressed as one actor. The worksplit in the functional teams is decided in the team. The functional teams act with the responsibilities and tasks defined by the role it represents. The functional team is lead and moderated by the participant from System Level 1/ (mostly people from the engineering services, see role allocation table).
\nFunctional teams decide in consensus, or escalate to the coregroup.
\nExample for the functional Team “REQ-F” """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:GENERIC--WORKFLOW--TYPES\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Assignment workflow: Unassigned, rejected, or unlinked work items are assigned to a team based on the work item type and system level (done by a functional team, see [2])\n\n\* Derivation workflow: The standard workflow, where work items are resolved along the mandatory trace (along the workflow rules), work is moving from team to team, or from team collaboration to team collaboration\n\n\* Trace change workflow: A change in a trace is analysed up to the highest work item again (done by modelling service, all work items get “suspect”), and from there all derivations are checked, resolved, and approved again (derivation workflow).\n\n\* Uplink workflow: A set of traces is “connected” to another set. This typically happens, when “external contributions” are imported (e.g. a team that proposes the interfaces of a subsystem). The connection links are created as proposals. For all new connection links a trace change workflow is executed. Redundancies are analysed and eliminated, what again triggers trace change workflows.\n\n\* Trace analysis workflow: Progress and trace consistency are analysed and reported by the modelling service\n\nThese workflows are assigned by the team or person, where the triggering work item is assigned to. The trace analysis is done by the modelling service on a frequent basis.", -- "\* Assignment workflow: Unassigned, rejected, or unlinked work items are assigned to a team based on the work item type and system level (done by a functional team, see [2])
\n\* Derivation workflow: The standard workflow, where work items are resolved along the mandatory trace (along the workflow rules), work is moving from team to team, or from team collaboration to team collaboration
\n\* Trace change workflow: A change in a trace is analysed up to the highest work item again (done by modelling service, all work items get “suspect”), and from there all derivations are checked, resolved, and approved again (derivation workflow).
\n\* Uplink workflow: A set of traces is “connected” to another set. This typically happens, when “external contributions” are imported (e.g. a team that proposes the interfaces of a subsystem). The connection links are created as proposals. For all new connection links a trace change workflow is executed. Redundancies are analysed and eliminated, what again triggers trace change workflows.
\n\* Trace analysis workflow: Progress and trace consistency are analysed and reported by the modelling service
\nThese workflows are assigned by the team or person, where the triggering work item is assigned to. The trace analysis is done by the modelling service on a frequent basis."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:GROUND--FOOTPRINT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The ground footprint of an object moving on the earth is defined as the projection of its volume on the earth ground.\n\nNote: This defintion is applicable for collission detection between two ground vehicles moving on the same level.", -- "The ground footprint of an object moving on the earth is defined as the projection of its volume on the earth ground.
\nNote: This defintion is applicable for collission detection between two ground vehicles moving on the same level."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HARD--KEY--PHYSICAL--KEY--NOT--PART--OF--VIEW---THIS--KEY--CAN--ALSO--HAVE--A--TEXT--LABEL--OR--S\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Hard Key\n\n Physical key not part of view. This key can also have a text label or symbol.", -- "Hard Key
\n Physical key not part of view. This key can also have a text label or symbol."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HARDWARE--ABSTRACTION--INTERFACE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Hardware Abstraction Interface I2 (Interface 2) provides an abstraction of all technology layers above from the specific hardware used below, enabling easy replace ability of commercial of-the-shelf hardware procurable from a well-sized market of hardware vendors.\n\n Note: This is not really an interface, but rather a compatibility list of allowed hardware incl. CPU, memory, etc.", -- "The Hardware Abstraction Interface I2 (Interface 2) provides an abstraction of all technology layers above from the specific hardware used below, enabling easy replace ability of commercial of-the-shelf hardware procurable from a well-sized market of hardware vendors.
\n Note: This is not really an interface, but rather a compatibility list of allowed hardware incl. CPU, memory, etc."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HAZARD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Condition that could lead to an accident \n\n Note 1 to entry: The equivalent definition in [IEC 60050-903:2013, 903-01-02] refers to "harm" instead of "accident".\n\n Note 2 to entry: A Hazard sits at the boundary of the system under consideration. [ ERA-REC-116-2015-GUI] """, -- """ Condition that could lead to an accident
\n Note 1 to entry: The equivalent definition in [IEC 60050-903:2013, 903-01-02] refers to "harm" instead of "accident".
\n Note 2 to entry: A Hazard sits at the boundary of the system under consideration. [ ERA-REC-116-2015-GUI] """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HAZARD\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Condition that could lead to an accident \n\nNote 1 to entry: The equivalent definition in [IEC 60050-903:2013, 903-01-02] refers to "harm" instead of "accident".\n\nNote 2 to entry: A Hazard sits at the boundary of the system under consideration. [ ERA-REC-116-2015-GUI] """, -- """ Condition that could lead to an accident
\nNote 1 to entry: The equivalent definition in [IEC 60050-903:2013, 903-01-02] refers to "harm" instead of "accident".
\nNote 2 to entry: A Hazard sits at the boundary of the system under consideration. [ ERA-REC-116-2015-GUI] """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HAZOP\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A hazard and operability study (HAZOP) is a structured and systematic examination of a complex planned or existing process or operation in order to identify and evaluate problems that may represent risks to personnel or equipment. The intention of performing a HAZOP is to review the design to pick up design and engineering issues that may otherwise not have been found. The technique is based on breaking the overall complex design of the process into a number of simpler sections called 'nodes' which are then individually reviewed. It is carried out by a suitably experienced multi-disciplinary team (HAZOP) during a series of meetings. The HAZOP technique is qualitative, and aims to stimulate the imagination of participants to identify potential hazards and operability problems. Structure and direction are given to the review process by applying standardised guide-word prompts to the review of each node.\n\n[SOURCE: Wikipedia Hazard and operability study - Wikipedia]", -- "A hazard and operability study (HAZOP) is a structured and systematic examination of a complex planned or existing process or operation in order to identify and evaluate problems that may represent risks to personnel or equipment. The intention of performing a HAZOP is to review the design to pick up design and engineering issues that may otherwise not have been found. The technique is based on breaking the overall complex design of the process into a number of simpler sections called 'nodes' which are then individually reviewed. It is carried out by a suitably experienced multi-disciplinary team (HAZOP) during a series of meetings. The HAZOP technique is qualitative, and aims to stimulate the imagination of participants to identify potential hazards and operability problems. Structure and direction are given to the review process by applying standardised guide-word prompts to the review of each node.
\n[SOURCE: Wikipedia Hazard and operability study - Wikipedia]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HFI--ACTIVITIES\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "HFI Activities are conducted to optimise the effectiveness and efficiency of human performance by fully considering the human contribution to system performance.\n\n Human Performance is the observable and measurable behaviour that occurs in job and task situations, the extent to which goals such as speed, accuracy, quality and other criteria are met by people in their work environments.\n\n The focus is on the ability of operators and maintainers to meet system performance requirements, including reliability and maintainability, under the conditions in which the system is employed.", -- "HFI Activities are conducted to optimise the effectiveness and efficiency of human performance by fully considering the human contribution to system performance.
\n Human Performance is the observable and measurable behaviour that occurs in job and task situations, the extent to which goals such as speed, accuracy, quality and other criteria are met by people in their work environments.
\n The focus is on the ability of operators and maintainers to meet system performance requirements, including reliability and maintainability, under the conditions in which the system is employed."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HMI--COMPONENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A Secure Component with a human user interface.\n\n Examples of HMI Components are PC Workstation, tablet device, smart phone, device with touch screen,...\n\n Exemptions: embedded components without a screen, e.g. with push buttons and LEDs", -- "A Secure Component with a human user interface.
\n Examples of HMI Components are PC Workstation, tablet device, smart phone, device with touch screen,..."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HMI--ELEMENT--AN--HMI--ELEMENT--IS--A--PHYSICAL--COMPONENT--THAT--INTERACTS--WITH--THE--DRIVE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "HMI Element\n\n An HMI Element is a physical component that interacts with the driver: Buzzer, Display Panel, loudspeaker, Hard Key...", -- "HMI Element
\n An HMI Element is a physical component that interacts with the driver: Buzzer, Display Panel, loudspeaker, Hard Key..."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HUMAN--FACTORS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Human factors issues include anything that affects human performance, particularly those factors that may cause or contribute to human error. The main human factors areas include:\n\n \n\n\* Individual (physical size, personal preferences, cognitive skills, attitudes, background)\n\n\* Organisation (culture, work pattern, communications, supervision, training)\n\n\* Job (design of equipment, rules and procedures, tools, signage, environment)\n\nThe purpose of human factors is to minimise safety risk from the possibility of human error by:\n\n \n\n\* ensuring human characteristics are accounted for in the design (or re-design) of new and existing systems and equipment\n\n\* identifying the issues which may cause or contribute to human errors\n\n\* conducting activities and applying controls to reduce likelihood and consequences.", -- "Human factors issues include anything that affects human performance, particularly those factors that may cause or contribute to human error. The main human factors areas include:
\n
\n\* Individual (physical size, personal preferences, cognitive skills, attitudes, background)
\n\* Organisation (culture, work pattern, communications, supervision, training)
\n\* Job (design of equipment, rules and procedures, tools, signage, environment)
\nThe purpose of human factors is to minimise safety risk from the possibility of human error by:
\n
\n\* ensuring human characteristics are accounted for in the design (or re-design) of new and existing systems and equipment
\n\* identifying the issues which may cause or contribute to human errors
\n\* conducting activities and applying controls to reduce likelihood and consequences."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:HUMAN-SYSTEM--INTEGRATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Human-System Integration, an interdisciplinary approach that aims at optimizing in an early development stage the global system performance by desgining solutions adapted for both human and technical system. \n\nHSI studies integrates work from multiple human centered domains - process analysis, both qualitative and quantitatve, ergonomics, safety, survivability, habitability, skill analysis, training. \n\nHSI typically help define user interfaces and lead to workitem SPPR-2246 - Application Condition or SPPR-2244 - Safety related application conditions .", -- "Human-System Integration, an interdisciplinary approach that aims at optimizing in an early development stage the global system performance by desgining solutions adapted for both human and technical system.
\nHSI studies integrates work from multiple human centered domains - process analysis, both qualitative and quantitatve, ergonomics, safety, survivability, habitability, skill analysis, training.
\nHSI typically help define user interfaces and lead to workitem SPPR-2246 - Application Condition or SPPR-2244 - Safety related application conditions ."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:IDENTITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An identity acts as an address where algorithms can retrieve detailed information about an object or struct.", -- "Identity"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:IMPERSONATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Impersonation, in terms of behavior, involves a person or entity imitating or mimicking the actions, mannerisms, or characteristics of another individual or entity.\n\nIn the context on how this definition is to be understood, a newer system would behave exactly like an older version system of itself, allowing it to interact with older systems/subsystems transparently, by behaving exactly like the older version expected by them.\n\n\n\nFrom a software perspective, the different impersonations a system can take could be implemented as independent modules, which would reduce the complexity of each module implementing an specific impersonation, and also limit the side effects of changes or bugs in one module to the others.\n\nIt could also facilitate the addition of a new version of a system, while still keeping the former version of the system available in a transparent way.", -- "Impersonation, in terms of behavior, involves a person or entity imitating or mimicking the actions, mannerisms, or characteristics of another individual or entity.
\nIn the context on how this definition is to be understood, a newer system would behave exactly like an older version system of itself, allowing it to interact with older systems/subsystems transparently, by behaving exactly like the older version expected by them.
\n
\nFrom a software perspective, the different impersonations a system can take could be implemented as independent modules, which would reduce the complexity of each module implementing an specific impersonation, and also limit the side effects of changes or bugs in one module to the others.
\nIt could also facilitate the addition of a new version of a system, while still keeping the former version of the system available in a transparent way."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INCIDENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "‘incident’ means any occurrence, other than an accident or serious accident, affecting the safety of railway operations; SPPRAMSS-337 - [Directive (EU) 2016/798]", -- "As defined in Article 3 of Directive (EU) 2016/798."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INFRASTRUCTURE--MANAGER\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Infrastructure Manager", -- "As defined in Article 3(2) of Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area (OJ L 343, 14.12.2012, p. 32)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INFRASTRUCTURE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A section of the railway network (distance on the network between two points)", -- "Commission Regulation (EU) No 1299/2014 of 18 November 2014 on the technical specifications for interoperability relating to the ‘infrastructure’ subsystem of the rail system in the European Union"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INPUT--DOCUMENTS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Input documents” are for example\n\n \* Imported documents that are stored as “unstructured” content in the ALM in the first step (no work items created already)\n\n \* Unstructured documents that are step by step converted to documents with structured work items\n\n \* A model or model sketch from another modelling system, that is not compliant or convertible to SP modelling method/system, created as input document with concrete Polarion work items in the status “proposal”. These are seen as input sketches and are added manually into the SP modelling system using the correct method and modelling process\n\n \* ALM documents in which new work items are created in a free structure and sequence (workflow designed in the domains)\n\n\* Input documents are not used as formal deliverable (because they are created manually and may not contain all work items in a certain scope), but they can be used as background documentation.\n\n\* The differentiation of input and output documents allows to create input documents along the needs of the workflows – having “things at one place where the team is currently working” – without the constraint to structure or “sort” it as a formal output\n\n(image: 1-screenshot-20221230-141047.png)", -- "\* Input documents” are for example
\n \* Imported documents that are stored as “unstructured” content in the ALM in the first step (no work items created already)
\n \* Unstructured documents that are step by step converted to documents with structured work items
\n \* A model or model sketch from another modelling system, that is not compliant or convertible to SP modelling method/system, created as input document with concrete Polarion work items in the status “proposal”. These are seen as input sketches and are added manually into the SP modelling system using the correct method and modelling process
\n \* ALM documents in which new work items are created in a free structure and sequence (workflow designed in the domains)
\n\* Input documents are not used as formal deliverable (because they are created manually and may not contain all work items in a certain scope), but they can be used as background documentation.
\n\* The differentiation of input and output documents allows to create input documents along the needs of the workflows – having “things at one place where the team is currently working” – without the constraint to structure or “sort” it as a formal output
\n(image: 1-screenshot-20221230-141047.png)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTEGRATION--TASK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Combine elements, validate/test whole system behaviour, implement/commission\n\n\* Right side of CENELEC “V”", -- "\* Combine elements, validate/test whole system behaviour, implement/commission
\n\* Right side of CENELEC “V”"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTEGRITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Integrity: property of accuracy and completeness \n\n(source: ISO 27000-2018 )", -- "Integrity: property of accuracy and completeness
\n(source: ISO 27000-2018 )"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTERCHANGEABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Interchangeability is the ability to replace a subsystem from supplier A by a sub-system from supplier B without affecting other sub-systems or the overall system/subsystem and with a lowest reasonable integration effort{comment:1295} and without any need for recertification. Exchangeability and interchangeability are related to the physical characteristics of sub-systems whereas interoperability is related to interactions between subsystems (e.g. also between STM and ETCS on-board there is interoperability).", -- "Interchangeability is the ability to replace a subsystem from supplier A by a sub-system from supplier B without affecting other sub-systems or the overall system/subsystem and without any integration effort (lowest reasonable integration effort){comment:1295} and without any need for recertification. Exchangeability and interchangeability are related to the physical characteristics of sub-systems whereas interoperability is related to interactions between subsystems (e.g. also between STM and ETCS on-board there is interoperability)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTERFACE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ An interface is the link between different building blocks. Inside a building block there are only "proprietary interfaces". With an interface the sub-systems of different suppliers{comment:1296} can be combined. """, -- "With an interface the sub-systems of different suppliers{comment:1296} are combined."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTERLOCKING\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Interlocking is a set of signaling devices which physically materializes, in the area of action of a switch post (junction, crossing of tracks, etc.) throught mechanical, and / or electrical solutions . It allows train movement if the safety conditions have been met regarding train maneuver and signal control devices. (double. needs to be deleted)", -- "A general term applied to the controlling of the setting and releasing of “signals” and “points” to prevent unsafe conditions arising, and equipment which performs this function."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTERLOCKING\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Interlocking is a set of signaling devices which physically materializes, in the area of action of a switch post (junction, crossing of tracks, etc.) throught mechanical, and / or electrical solutions . It allows train movement if the safety conditions have been met regarding train maneuver and signal control devices.", -- "Interlocking is a set of signaling devices which physically materializes, in the area of action of a switch post (junction, crossing of tracks, etc.) throught mechanical, and / or electrical solutions . It allows train movement if the safety conditions have been met regarding train maneuver and signal control devices. (double. needs to be deleted)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTERNAL--BUTTON--THE--INTERNAL--BUTTON--IS--A--BUTTON--WHICH--IS--MANAGED--DIRECTLY--BY--TDS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Internal Button\n\n The Internal Button is a button which is managed directly by TDS.", -- "Internal Button
\n The Internal Button is a button which is managed directly by TDS."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTERNAL--PUBLICATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Any work product that is not required to be submitted in order to complete a process, phase, or project.\n\nAn input or output of a task that does not cross the process boundaries.", -- "Any work product that is not required to be submitted in order to complete a process, phase, or project.
\nAn input or output of a task that does not cross the process boundaries."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTEROPERABILITY--CONSTITUENTS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "SPPRAMSS-328 - [TSI CCS + (EU) 2023/1695] section 5.1. Definition\n\nIn accordance with Article 2(7) of Directive (EU) 2016/797, interoperability constituents means any elementary \n\ncomponent, group of components, subassembly or complete assembly of equipment incorporated or intended to be \n\nincorporated into a subsystem, upon which the interoperability of the rail system depends directly or indirectly, including \n\nboth tangible objects and intangible objects.", -- "any elementary component, group of components, subassembly or complete assembly of equipment incorporated or intended to be incorporated into a subsystem, upon which the interoperability of the rail system depends directly or indirectly, including both tangible objects and intangible objects"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTEROPERABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Interoperability means the ability to allow the safe and uninterrupted movement of trains that accomplish the specified levels of performance.Reference to the TSI (European Regulation) would be good to understand the importance (double. needs to be deleted)", -- "Interoperability means the ability to allow the safe and uninterrupted movement of trains that accomplish the specified levels of performance. (1)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:INTEROPERABILITY\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Interoperability means the ability to allow the safe and uninterrupted movement of trains that accomplish the specified levels of performance, see [Subset-023] SPT2ARC-1619 and [IOP-Dir 2016/797] SPT2ARC-1617 so that a train is able to run across different infrastructure networks (IMs) and that an infrastructure network is able to interact with trains of different Railway Undertakings, using systems/sub-systems from different origins. Exchangeability and interchangeability are related to the physical characteristics of sub-systems whereas interoperability is related to interactions between subsystems (e.g. also between STM and ETCS on-board there is interoperability).", -- "the ability of a rail system to allow the safe and uninterrupted movement of trains which accomplish the required levels of performance"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:KEY--CONTROLLER--CONTROLLER--WHICH--MANAGES--STATES--AND--FAILURES--OF--HARD--KEYS--INTERN\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Key Controller\n\n Controller which manages states and failures of Hard Keys (internal and Lateral Key) and switches.", -- "Key Controller
\n Controller which manages states and failures of Hard Keys (internal and Lateral Key) and switches."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LATERAL--KEY--HARD--KEY--LOCATED--CLOSE--TO--A--DISPLAY--AREA--ALLOWING--SOFT--KEY--TECHNOLOG\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Lateral Key\n\nHard Key located close to a Display Area allowing soft key technology.", -- "Lateral Key
\nHard Key located close to a Display Area allowing soft key technology."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LAYOUT--CONTROLLER--THE--LAYOUT--CONTROLLER--MANAGES--THE--LAYOUT--FOR--AN--AREA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Layout Controller\n\n The Layout Controller manages the Layout for an Area.", -- "Layout Controller
\n The Layout Controller manages the Layout for an Area."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LAYOUT--ELEMENT--CONTROLLER--THE--LAYOUT--ELEMENT--CONTROLLER--MANAGESLAYOUT--ELEMENTS--O\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Layout Element Controller\n\n The Layout Element Controller managesLayout Elements of a Layout. It knows how to present itself and how to react on events.", -- "Layout Element Controller
\n The Layout Element Controller managesLayout Elements of a Layout. It knows how to present itself and how to react on events."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LAYOUT--ENGINE--THE--LAYOUT--ENGINE--IS--A--GENERIC--PIECE--OF--SOFTWARE--ABLE--TO--GENERATE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Layout Engine\n\n The Layout Engine is a generic piece of software able to generate any View based on Areas, Layouts and Layout Elements as defined in a configuration.", -- "Layout Engine
\n The Layout Engine is a generic piece of software able to generate any View based on Areas, Layouts and Layout Elements as defined in a configuration."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LAYOUT--LAYOUT--IS--A--LIST--OF--LAYOUT--ELEMENTS--WHICH--IS--DISPLAYED--IN--AN--AREA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Layout\n\n Layout is a list of layout elements which is displayed in an area.", -- "Layout
\n Layout is a list of layout elements which is displayed in an area."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LEXICAL--GLOSSARY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "either imported from outside the project or authored inside the project, lexical glossaries are the containers for lexical entiries and abbreviations. A lexical glossary is first consolidated by its glossary author in its own scope, i.e. its definitions shall not be redundant with each other. It is then consolidated towards other glossaries. This glossary is then called SPPR-5441 - Missing cross-reference.\n\nLexical glossaries are the source of the lexical definitons and abbreviations referred to in SPPR-5434 - Refering document.", -- "either imported from outside the project or authored inside the project, lexical glossaries are the containers for lexical entiries and abbreviations. A lexical glossary is first consolidated by its glossary author in its own scope, i.e. its definitions shall not be redundant with each other. It is then consolidated towards other glossaries. This glossary is then called SPPR-5441 - Missing cross-reference.
\nLexical glossaries are the source of the lexical definitons and abbreviations referred to in SPPR-5434 - Refering document."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LOGICAL--ACTOR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "See definition of SPPR-2579 - System Actor now the actor is used in the logical architecture.", -- "external entity (human, system, ...) interacting with the logical components of the system of interest through their interfaces"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LOGICAL--COMPONENT\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "conceptual element being part of the system, contributing to its behaviour, by interacting with other logical \n\n components and logical actors", -- "conceptual element being part of the system, contributing to its behaviour, by interacting with other logical
\n components and logical actors"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LOGICAL--FUNCTION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A SPPR-2598 - Function derived during logical architecture by splitting a system function.", -- "A function derived during logical architecture by splitting a system function."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LOGISTIC--DELAY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "delay, excluding administrative delay, incurred for the provision of resources needed for a maintenance action to proceed or continue.\n\n[SOURCE: IEC 60050-192:2015, 192-07-13]", -- "delay, excluding administrative delay, incurred for the provision of resources needed for a maintenance action to proceed or continue.
\n[SOURCE: IEC 60050-192:2015, 192-07-13]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:LOUDSPEAKER--DEVICE--THAT--CONVERTS--AN--ELECTRICAL--AUDIO--SIGNAL--INTO--A--CORRESPONDING\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Loudspeaker\n\n Device that converts an electrical audio signal into a corresponding sound.", -- "Loudspeaker
\n Device that converts an electrical audio signal into a corresponding sound."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MACMT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean active corrective maintenance time\n\n expectation of the active corrective maintenance time\n\n[SOURCE: IEC 60050-192:2015, 192-07-22]", -- "mean active corrective maintenance time
\n expectation of the active corrective maintenance time
\n[SOURCE: IEC 60050-192:2015, 192-07-22]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MAD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean administrative delay. Expectation of the administrative delay.\n\n[SOURCE: IEC 60050-192:2015,192-07-26]", -- "mean administrative delay. Expectation of the administrative delay.
\n[SOURCE: IEC 60050-192:2015,192-07-26]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MAINTAINABILITY--%3COF--AN--ITEM%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Ability to be retained in, or restored to, a state to perform as required, under given conditions of use and maintenance \n\nNote 1 to entry: Given conditions would include aspects that affect maintainability, such as: location for maintenance, accessibility, maintenance procedures and maintenance resources. \n\n[SOURCE: IEC 60050-192:2015, 192-01-27] \n\nSource: SPPRAMSS-349 - [EN 50126-1:2017]", -- "Ability to be retained in, or restored to, a state to perform as required, under given conditions of use and maintenance
\nNote 1 to entry: Given conditions would include aspects that affect maintainability, such as: location for maintenance, accessibility, maintenance procedures and maintenance resources.
\n[SOURCE: IEC 60050-192:2015, 192-01-27]
\nSource: SPPRAMSS-349 - [EN 50126-1:2017]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MAINTAINABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Ability to be retained in, or restored to, a state to perform as required, under given conditions of use and maintenance [EN50126], see SPT2ARC-1616, see also SPPRAMSS-3540 - maintainability, <of an item> .{comment:1297}", -- "The probability that a given active maintenance action, for an item under given conditions of use can be carried out within a stated time interval when the maintenance is performed under stated conditions and using stated procedures and resources. (3) (Definitions for other maintenance related terms are given in reference 3)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MANAGEMENT--BY--TRACEABILITY--KANBAN--BASED\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A trace (nodes/work items and their links) is a graph that works out one issue (e.g. one requirement) in the most efficient, complete and fast way, down to its operational and system implementation\n\n \n\n (image: 1-image10.png)", -- "A trace (nodes/work items and their links) is a graph that works out one issue (e.g. one requirement) in the most efficient, complete and fast way, down to its operational and system implementation
\n
\n (image: 1-image10.png)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MANUFACTURER\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The company or organization creating a component, product or system.", -- "the manufacturer as defined in point (36) of Article 2 of Directive (EU) 2016/797"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MDBF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Mean Distance Between Failures\n\n [SOURCE: Wikipedia Mean Distance Between Failure – Wikipedia]", -- "Mean Distance Between Failures
\n [SOURCE: Wikipedia Mean Distance Between Failure – Wikipedia]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MDBSF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Mean Distance Between Service Failures\n\n [SOURCE: Wikipedia Mean Distance Between Failure – Wikipedia]", -- "Mean Distance Between Service Failures
\n [SOURCE: Wikipedia Mean Distance Between Failure – Wikipedia]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MEASURE--OF--EFFECTIVENESS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Measure of Effectiveness (that the system performs as required). Characteristics: \n\n\* Relates to performance\n\n\* Objective\n\n\* Simple to state\n\n\* Testable\n\n\* Complete\n\n\* Clear\n\n\* States any time dependency\n\n\* States any environmental conditions\n\n\* Can be measured quantitatively (if required, may be measured statistically or as a probability)\n\n\* Easy to measure\n\n\* Select only MoEs that measure the degree to which the desired outcome is achieved\n\n\* Use the same MoEs to measure more than one condition when appropriate\n\n\* Structure so that they have measurable, collectible, and relevant indicators\n\n\* Write as statements (not questions)\n\n\* Maximize clarity", -- "Measure of Effectiveness (that the system performs as required). Characteristics:
\n\* Relates to performance
\n\* Objective
\n\* Simple to state
\n\* Testable
\n\* Complete
\n\* Clear
\n\* States any time dependency
\n\* States any environmental conditions
\n\* Can be measured quantitatively (if required, may be measured statistically or as a probability)
\n\* Easy to measure
\n\* Select only MoEs that measure the degree to which the desired outcome is achieved
\n\* Use the same MoEs to measure more than one condition when appropriate
\n\* Structure so that they have measurable, collectible, and relevant indicators
\n\* Write as statements (not questions)
\n\* Maximize clarity"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:METHODOLOGY\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ The ARCADIA method is used to identify functional chains, their overlapping scenarios and desired performance, along with their support by the architecture. \n\n \n\n\* Starting with the first level of system analysis, they ensure traceability throughout the process definition and check each proposed architectural design against expected performance and constraints.\n\n\* The non-functional properties expected from the system solution are also formalized in 'viewpoints'. Each viewpoint captures constraints that the system should face or meet (feared events, security threats, latency expectations, product line or reuse constraints, power consumption or cost issues, and more).\n\n\* Then the architecture model is automatically analyzed to verify that it meets these constraints, thanks to dedicated expert rules (performance computation, resource consumption, safety or security barriers, etc.). This analysis can be done very early in the development cycle, detecting design issues as soon as possible ("early validation").\n\nAs a summary, the approach to characterization by views (or "viewpoints") cross-checks that the proposed architecture is capable of providing the required functions with the desired level of performance, security, dependability, mass, scalability, environments, mass, interfaces, etc. ensuring the consistency of engineering decisions, because all engineering stakeholders share the same engineering information, and can apply his/her own views and checks to them, so as to secure the common definition. """, -- """ The ARCADIA method is used to identify functional chains, their overlapping scenarios and desired performance, along with their support by the architecture.
\n
\n\* Starting with the first level of system analysis, they ensure traceability throughout the process definition and check each proposed architectural design against expected performance and constraints.
\n\* The non-functional properties expected from the system solution are also formalized in 'viewpoints'. Each viewpoint captures constraints that the system should face or meet (feared events, security threats, latency expectations, product line or reuse constraints, power consumption or cost issues, and more).
\n\* Then the architecture model is automatically analyzed to verify that it meets these constraints, thanks to dedicated expert rules (performance computation, resource consumption, safety or security barriers, etc.). This analysis can be done very early in the development cycle, detecting design issues as soon as possible ("early validation").
\nAs a summary, the approach to characterization by views (or "viewpoints") cross-checks that the proposed architecture is capable of providing the required functions with the desired level of performance, security, dependability, mass, scalability, environments, mass, interfaces, etc. ensuring the consistency of engineering decisions, because all engineering stakeholders share the same engineering information, and can apply his/her own views and checks to them, so as to secure the common definition. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:METHOD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A technique for performing a task.\n\nMethod is a grouping of guidance, modelling{comment:72} language, rules, techniques and patterns. Different methods may be available for the same task.\n\nIt defines the “HOW” of each task. (In this context, the words “method,” “technique,” “practice,” and “procedure” are often used interchangeably.) At any level, process tasks are performed using methods.", -- "A technique for performing a task.
\nMethod is a grouping of guidance, modelling{comment:72} language, rules, techniques and patterns. Different methods may be available for the same task.
\nIt defines the “HOW” of each task. (In this context, the words “method,” “technique,” “practice,” and “procedure” are often used interchangeably.) At any level, process tasks are performed using methods."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MFDT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean fault detection time \n\n[SOURCE: SPPRAMSS-3539 - [EN 61703: 2016]]", -- "mean fault detection time
\n[SOURCE: SPPRAMSS-3539 - [EN 61703: 2016]]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MICROPHONE--CONTROLLER--THE--MICROPHONE--CONTROLLER--MANAGES--STATES--AND--SIGNALS--OF--MI\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Microphone Controller\n\n The Microphone Controller manages states and signals of Microphone.", -- "Microphone Controller
\n The Microphone Controller manages states and signals of Microphone."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MICROPHONE--DEVICE--THAT--TRANSLATES--SOUND--VIBRATIONS--FROM--THE--AIR--INTO--ELECTRONIC\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Microphone\n\n Device that translates sound vibrations from the air into electronic signals and scribes them to a recording medium or over a loudspeaker.", -- "Microphone
\n Device that translates sound vibrations from the air into electronic signals and scribes them to a recording medium or over a loudspeaker."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MLD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean logistic delay. Expectation of the logistic delay.\n\n[SOURCE: IEC 60050-192:2015,192-07-27]", -- "mean logistic delay. Expectation of the logistic delay.
\n[SOURCE: IEC 60050-192:2015,192-07-27]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MODE--TRANSITION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A change of mode toward itself or toward another mode. A transition is characterised by a trigger which can be a boolean \n\n condition applied on certain model elements, such as functional exchanges.", -- "A change of mode toward itself or toward another mode. A transition is characterised by a trigger which can be a boolean
\n condition applied on certain model elements, such as functional exchanges."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MODEL--SYNCHRONISATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* There are two types of synchronisations:\n\n \* A copy of all MBSE models is stored in the ALM. The copied work items can be part of the ALM workflow or can be approved, decided, commented and linked in the ALM.\n\n \* Synchronisation between “mother LA/PA” and “daughter LA/PA” in the MBSE platform. These are done to split architecting work to different teams.\n\n \* Example (start situation for the SP):\n\n(image: 1-Picture\_1.png)", -- "\* There are two types of synchronisations:
\n \* A copy of all MBSE models is stored in the ALM. The copied work items can be part of the ALM workflow or can be approved, decided, commented and linked in the ALM.
\n \* Synchronisation between “mother LA/PA” and “daughter LA/PA” in the MBSE platform. These are done to split architecting work to different teams.
\n \* Example (start situation for the SP):
\n(image: 1-Picture\_1.png)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MODE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Kind of system behaviour that is expected in given usage conditions. Modes can be applied to elements such as actors and components.", -- "An operating state of the ERTMS/ETCS on-board equipment with a specified split of operational responsibilities between the ERTMS/ETCS system and the driver."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MODULE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "{comment:34}\n\nA module is a sourceable unit of the CCS system (hardware and/or software), having full defined functionality, interface, performance, safety. {comment:180}", -- "{comment:34}
\nA module is a sourceable unit of the CCS system (hardware and/or software), having full defined functionality, interface, performance, safety. {comment:180}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MOTBF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean operating time between failures\n\n expectation of the duration of the operating time between failures\n\n Note 1 to entry: Mean operating time between failures should only be applied to repairable items. For non-repairable items, see mean operating time to failure (192-05-11) SPPRAMSS-4040 - MTTF .\n\n[SOURCE: IEC 60050-192:2015, 192-05-13]", -- "mean operating time between failures
\n expectation of the duration of the operating time between failures
\n Note 1 to entry: Mean operating time between failures should only be applied to repairable items. For non-repairable items, see mean operating time to failure (192-05-11) SPPRAMSS-4040 - MTTF .
\n[SOURCE: IEC 60050-192:2015, 192-05-13]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MOVEMENT--PROTECTION--AREA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The area in the trackside which shall AFARP be secured for the intended movement.\n\n Note that this also means that as the train is moving, should anything amiss be detected, than a safety reaction would be expected (topic to be detailed at a later date).\n\n\n\n (image: diagram\_20240111-1529.38309.mxg.svg) {comment:66}{comment:67}{comment:84}{comment:95}{comment:105}\n\n Note as a representation, it is equivalent to the dimensions of the complete path from the front of the train{comment:65} up to the end point of the authorised movement.", -- "The area in the trackside which shall AFARP be secured for the intended movement.
\n Note that this also means that as the train is moving, should anything amiss be detected, than a safety reaction would be expected (topic to be detailed at a later date).
\n
\n Note as a representation, it is equivalent to the dimensions of the complete path from the front of the train{comment:65} up to the end point of the authorised movement."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MOVING--BLOCK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The term moving block is part of the ETCS Level 2 Moving Block Principle, which is a signalling concept placing emphasis on a largely independent signalling from the physical infrastructure.\n\n A moving block is defined by a block bounded by the confirmed rear end and the confirmed rear end of the preceding train (case 1, Figure 1) or, if closer, the beginning of the next fixed block (case 2, Figure 2). Such fixed blocks are delimited by TTDs e.g. around points and may for efficiency reasons still be used on ETCS L2MB lines.\n\n\n\n (image: 2-Def\_MovingBlock1.png)\n\nFigure {caption:Figure} Case 1 Definition of Moving Block(image: 1-Def\_MovingBlock2.png) \n\nFigure {caption:Figure} Case 2 Definition of Moving Block (incl. TTDs))\n\n The confirmed rear end of the preceding train is what releases the track behind it and in most cases delimits the moving block. It is established from the safe train length, represented by the distance between the estimated train front end position and the min safe rear end of the train [SUBSET-026 Baseline 4], if derived from a train position report with confirmed integrity.", -- "A block whose length is defined by the position of the train occupying the section of track ahead. The minimum block length would be from the rear most part of the occupying train to a point on the track where, if the train braked from its current speed, the front of the occupying train would be when the train came to a stand."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MRT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "expectation of the (mean) repair time\n\n[SOURCE: IEC 60050-192:2015, 192-07-21]\n\nNote 1: MRT = fault localization time + fault correction time + function checkout time according SPPRAMSS-3539 - [EN 61703: 2016]", -- "expectation of the (mean) repair time
\n[SOURCE: IEC 60050-192:2015, 192-07-21]
\nNote 1: MRT = fault localization time + fault correction time + function checkout time according SPPRAMSS-3539 - [EN 61703: 2016]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MTBF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean operating time between failures\n\n expectation of the duration of the operating time between failures\n\n Note 1 to entry: Mean operating time between failures should only be applied to repairable items. For non-repairable items, see mean operating time to failure (192-05-11) SPPRAMSS-4040 - MTTF .\n\n[SOURCE: IEC 60050-192:2015, 192-05-13]", -- "mean operating time between failures
\n expectation of the duration of the operating time between failures
\n Note 1 to entry: Mean operating time between failures should only be applied to repairable items. For non-repairable items, see mean operating time to failure (192-05-11) SPPRAMSS-4040 - MTTF .
\n[SOURCE: IEC 60050-192:2015, 192-05-13]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MTBSF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean operating time between service failures\n\n Note 1 to entry: Service failures should be defined as one of the failures severity levels. These failures are understood as failures with operational impact. For example failures for which the safety reaction is application of the service brake.\n\n Note 2 to entry: Abbreviation is not yet defined in any CEN/CENELEC railway standard but is often used by railway operators and infrastructure managers.", -- "mean operating time between service failures
\n Note 1 to entry: Service failures should be defined as one of the failures severity levels. These failures are understood as failures with operational impact. For example failures for which the safety reaction is application of the service brake.
\n Note 2 to entry: Abbreviation is not yet defined in any CEN/CENELEC railway standard but is often used by railway operators and infrastructure managers."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MTD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean technical delay \n\n[SOURCE: SPPRAMSS-349 - [EN 50126-1:2017] Annex B.4]", -- "mean technical delay
\n[SOURCE: SPPRAMSS-349 - [EN 50126-1:2017] Annex B.4]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MTTFF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean operating time to first failure\n\nexpectation of the operating time to first failure\n\nNote 1 to entry: See also operating time to first failure (192-05-02).\n\nNote 2 to entry: For non-repairable items, the MTTFF is also the MTTF.\n\n[SOURCE: IEC 60050-192:2015, 192-05-12]", -- "mean operating time to first failure
\nexpectation of the operating time to first failure
\nNote 1 to entry: See also operating time to first failure (192-05-02).
\nNote 2 to entry: For non-repairable items, the MTTFF is also the MTTF.
\n[SOURCE: IEC 60050-192:2015, 192-05-12]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MTTF\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ mean operating time to failure\n\n expectation of the operating time to failure\n\n Note 1 to entry: In the case of non-repairable items with an exponential distribution of operating times to failure (i.e. a constant failure rate) the MTTF is numerically equal to the reciprocal of the failure rate. This is also true for repairable items if after restoration they can be considered to be "as-good-as-new".\n\n Note 2 to entry: See also operating time to failure (192-05-01) SPPRAMSS-4441 - operating time to failure, <of an item> .\n\n[SOURCE: IEC 60050-192:2015, 192-05-11] """, -- """ mean operating time to failure
\n expectation of the operating time to failure
\n Note 1 to entry: In the case of non-repairable items with an exponential distribution of operating times to failure (i.e. a constant failure rate) the MTTF is numerically equal to the reciprocal of the failure rate. This is also true for repairable items if after restoration they can be considered to be "as-good-as-new".
\n Note 2 to entry: See also operating time to failure (192-05-01) SPPRAMSS-4441 - operating time to failure, <of an item> .
\n[SOURCE: IEC 60050-192:2015, 192-05-11] """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:MTTR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "mean time to restoration - expectation of the time to restoration \n\n deprecated: mean time to repair, mean time to recovery \n\n Note 1 to entry: IEC 60050-191:1990 (now withdrawn; replaced by IEC 60050-192:2015) defined the term ”mean time to recovery” as a synonym, but restoration and recovery are not synonyms. \n\n Note 2 to entry: MTTR = MFDT + MAD + MLD + MTD + MRT according SPPRAMSS-3539 - [EN 61703: 2016] \n\n [SOURCE: IEC 60050-192, 192-07-23, modified: Note 2 to entry added.]", -- "mean time to restoration - expectation of the time to restoration
\n deprecated: mean time to repair, mean time to recovery
\n Note 1 to entry: IEC 60050-191:1990 (now withdrawn; replaced by IEC 60050-192:2015) defined the term ”mean time to recovery” as a synonym, but restoration and recovery are not synonyms.
\n Note 2 to entry: MTTR = MFDT + MAD + MLD + MTD + MRT according SPPRAMSS-3539 - [EN 61703: 2016]
\n [SOURCE: IEC 60050-192, 192-07-23, modified: Note 2 to entry added.]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:NATIONAL--IMPLEMENATION--PLAN\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "In 2016, the EC also asked the EU Member States to establish the so-called “National Implementation Plans” (NIPs) in which they have to describe their actions to comply with the relevant standard for ERTMS, i.e. CCS TSI 2016/919. The CCS TSI regulates the implementation of fully interoperable 'control-command and signalling' subsystems. The NIPs have to fulfil two conditions, i.e. they must cover a period of at least 15 years and they must be updated every 5 years. In addition, they have to contain the following information: \n\n\n\n (image: 1-screenshot-20230616-124455.png)", -- "In 2016, the EC also asked the EU Member States to establish the so-called “National Implementation Plans” (NIPs) in which they have to describe their actions to comply with the relevant standard for ERTMS, i.e. CCS TSI 2016/919. The CCS TSI regulates the implementation of fully interoperable 'control-command and signalling' subsystems. The NIPs have to fulfil two conditions, i.e. they must cover a period of at least 15 years and they must be updated every 5 years. In addition, they have to contain the following information:
\n
\n (image: 1-screenshot-20230616-124455.png)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:NATIONAL--SAFETY--AUTHORITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "National Safety Authority", -- "(a) the national body entrusted with the tasks regarding railway safety in accordance with this Directive; (b) any body entrusted by several Member States with the tasks referred to in point (a) in order to ensure a unified safety regime; (c) any body entrusted by a Member State and a third country with the tasks referred to in point (a) in order to ensure a unified safety regime, provided that the Union has concluded an agreement to this effect with the third country concerned or that that Member State has concluded such agreement in accordance with an empowerment granted by the Union to that effect;"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:NETWORK--COMPONENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An implementation of data networking functions such as switching, routing, filtering or tunneling.\n\n Examples of Network Components are network switches, LAN/WAN routers, firewalls, data diodes and VPN endpoints.\n\n Excluded are from this definition are media converters, transceivers and bridges with no routing, switching or filtering capabilities.", -- "An implementation of data networking functions as switching, routing, filtering or tunneling.
\n Examples of Network Components are network switches, LAN/WAN routers, firewalls, data diodes and VPNs"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:NON-FUNCTIONAL--REQUIREMENTS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Non-Functional Requirements are constraints on the system that define how well something is to be done or how it is to be done which fall into three categories:{comment:66} \n\n\* Performance Requirements SPPR-4175 - Performance Requirements ;\n\n\* System Requirements SPPR-4177 - System Requirements ;{comment:65}\n\n\* Implementation Requirements SPPR-4180 - Implementation Requirements .\n\nThese categories are derived from consideration of the essential relationships with the Operational{comment:31} and Functional Requirements and ensure the completeness and consistency of the requirements model (It is these essential relationships between the functionally-based requirements and constraint-based requirements that make the Holistic Requirements Model so useful).", -- "Non-Functional Requirements are constraints on the system that define how well something is to be done or how it is to be done which fall into three categories:{comment:66}
\n\* Performance Requirements SPPR-4175 - Performance Requirements ;
\n\* System Requirements SPPR-4177 - System Requirements ;{comment:65}
\n\* Implementation Requirements SPPR-4180 - Implementation Requirements .
\nThese categories are derived from consideration of the essential relationships with the Operational{comment:31} and Functional Requirements and ensure the completeness and consistency of the requirements model (It is these essential relationships between the functionally-based requirements and constraint-based requirements that make the Holistic Requirements Model so useful)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:NON-REPUDIATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Non-Repudiation: ability to prove the occurrence of a claimed event or action and its originating entities\n\n(source: ISO 27000-2018 )", -- "Non-Repudiation: ability to prove the occurrence of a claimed event or action and its originating entities
\n(source: ISO 27000-2018 )"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:NOTIF-IT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The database for Notified National Rules. Has been replaced by SRD: Single Rule Database\n\n[SOURCE: ERA, https://www.era.europa.eu/domains/registers/srd\_en ]", -- "The database for Notified National Rules. Has been replaced by SRD: Single Rule Database
\n[SOURCE: ERA, https://www.era.europa.eu/domains/registers/srd\_en ]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OBJECTIVES\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ ARCADIA is a structured engineering method to identify and check the architecture of complex systems. It promotes collaborative work among all stakeholders during many of the engineering phases of the system. It allows iterations during the definition phase that help the architects to converge towards satisfaction of all identified needs. Even if textual requirements are kept as a support for part of customer need capture, ARCADIA favours functional analysis as the major way to formalize the need and solution behaviour. This includes operational, functional and non-functional aspects, along with resulting definition of the architecture, based on – and justified against – this functional analysis. ARCADIA is based on the following general principles \n\n\* All engineering stakeholders share the same language, method set of engineering artifacts and information, description of the need and the product itself as a shared model;\n\n\* Each set of constraints (e.g. safety, performance, cost, mass, etc.) is formalized in a "viewpoint" against which each candidate architecture will be checked;\n\n\* Architecture verification rules are established and the model is challenged against them, so as to check that architecture definition meets expectations, as early as possible in the process;\n\n\* Co-engineering between the different levels of engineering is supported by the joint development of models. Models of various levels of the architecture and trade-offs are deduced, validated and/or connected with each other.\n\nThe ARCADIA method is tooled through Capella, a modelling tool that meets full-scale deployment constraints in an operational context. Capella is available free of charge from the engineering community under open source. """, -- """ ARCADIA is a structured engineering method to identify and check the architecture of complex systems. It promotes collaborative work among all stakeholders during many of the engineering phases of the system. It allows iterations during the definition phase that help the architects to converge towards satisfaction of all identified needs. Even if textual requirements are kept as a support for part of customer need capture, ARCADIA favours functional analysis as the major way to formalize the need and solution behaviour. This includes operational, functional and non-functional aspects, along with resulting definition of the architecture, based on – and justified against – this functional analysis. ARCADIA is based on the following general principles
\n\* All engineering stakeholders share the same language, method set of engineering artifacts and information, description of the need and the product itself as a shared model;
\n\* Each set of constraints (e.g. safety, performance, cost, mass, etc.) is formalized in a "viewpoint" against which each candidate architecture will be checked;
\n\* Architecture verification rules are established and the model is challenged against them, so as to check that architecture definition meets expectations, as early as possible in the process;
\n\* Co-engineering between the different levels of engineering is supported by the joint development of models. Models of various levels of the architecture and trade-offs are deduced, validated and/or connected with each other.
\nThe ARCADIA method is tooled through Capella, a modelling tool that meets full-scale deployment constraints in an operational context. Capella is available free of charge from the engineering community under open source. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ODOMETRY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "This term represents the odometry functionality as specified in the CCS TSI 2023.\n\n According to the glossary (SUBSET-23, TSI 2023): Odometry is the process of measuring the train’s movement along the track. Used for speed measurement and distance measurement.", -- "Odometry is a function inside the ETCS Onboard System (see SUBSET 23 glossary, TSI 2023).
\nThe function provides information about the distandce traveld and the train speed (distance over time)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATING--TIME--TO--FAILURE--%3COF--AN--ITEM%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "operating time accumulated from the first use, or from restoration, until failure\n\n Note 1 to entry: See also operating time (192-02-05) SPPRAMSS-4080 - operating time .\n\n [SOURCE: IEC 60050-192:2015, 192-05-01]", -- "operating time accumulated from the first use, or from restoration, until failure
\n Note 1 to entry: See also operating time (192-02-05) SPPRAMSS-4080 - operating time .
\n [SOURCE: IEC 60050-192:2015, 192-05-01]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATING--TIME\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Time interval for which an item is in an operating state \n\n Note 1 to entry: The duration of operating time may be expressed in units appropriate to the item concerned, e.g. calendar time, operating cycles, distance run, etc., and the units should always be clearly stated.\n\n [SOURCE: IEC 60050-192:2015, 192-02-05]", -- "Time interval for which an item is in an operating state
\n Note 1 to entry: The duration of operating time may be expressed in units appropriate to the item concerned, e.g. calendar time, operating cycles, distance run, etc., and the units should always be clearly stated.
\n [SOURCE: IEC 60050-192:2015, 192-02-05]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATIONAL--CAPABILITY\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An operational capability is an ability, expected of one or more operational entities. The operational capability provides a service contributing to fulfilling a high-level goal to which one or more operational entities should contribute, and which is likely to influence system definition or usage. It is characterised by a set of operational processes and scenarios describing more precisely the conditions for performing the operational activities that contribute to it. Operational capabilities are similar to use cases. They describe the application of the system from the point of view of the user/operational entity.", -- "ability of an operational entity to provide a service"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATIONAL--ENTITY\_ACTOR\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Denotes an entity of the real world (such as another system, device, group or organisation ...) involved in operational activities to which the system of interest or stakeholders must contribute. An actor is a type of operational entity (usually human and indivisible).", -- "Denotes an entity of the real world (such as another system, device, group or organisation ...) involved in operational activities to which the system of interest or stakeholders must contribute. An actor is a type of operational entity (usually human and indivisible).{comment:1}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATIONAL--HARMONIZATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ An operational topic (process, actor, defintion, ...) is considered harmonized if a description is provided in the SP context that fulfills:\n\n \n\n\* This description is exhaustive, delimited and precise. There is no remaining "open space and freedom". The scope is clearly defined. Existing gaps are clearly identified. Statements are formulated unambiguously, if necessary in a formal form. {comment:98}\n\n\* A set of variants and parameters, if necessary, are part of the description.\n\n\* The description has been agreed by both Railway and Industry stakeholdes.\n\nThis consens is especially defined under the light of project rework and domain standardisaton:\n\n \n\n\* The description is agreed by the railways stakeholders of system Pillar as fitting their need, i.e. all their needs are fullfilled by the available variants and parameters without having again a solution discussion or check.\n\n \n\n\* This description is agreed by the industry stakeholdes as 1:1 implementable, without having to reopen again the ambiguity discussion """, -- """ An operational topic (process, actor, defintion, ...) is considered harmonized if a description is provided in the SP context that fulfills:
\n
\n\* This description is exhaustive, delimited and precise. There is no remaining "open space and freedom". The scope is clearly defined. Existing gaps are clearly identified. Statements are formulated unambiguously, if necessary in a formal form. {comment:98}
\n\* A set of variants and parameters, if necessary, are part of the description.
\n\* The description has been agreed by both Railway and Industry stakeholdes.
\nThis consens is especially defined under the light of project rework and domain standardisaton:
\n
\n\* The description is agreed by the railways stakeholders of system Pillar as fitting their need, i.e. all their needs are fullfilled by the available variants and parameters without having again a solution discussion or check.
\n
\n\* This description is agreed by the industry stakeholdes as 1:1 implementable, without having to reopen again the ambiguity discussion """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATIONAL--HAZARD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ Hazard whose cause is related to a failure in the application of an operational scenario/procedure (e.g. hazard due to operator or signaler or driver error) and/or to external events. These hazards are managed by means of "Operational Hazard" Work Item. """, -- "A problematic situation that can occure with a process design."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATIONAL--MISSION--DEPRECATED\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A high-level operational objective. A drive or a goal that is assumed by a collection of operational entity, in order to reach specific objectives.", -- "A high-level operational objective. A drive or a goal that is assumed by a collection of operational entity, in order to {comment:2}reach specific objectives."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATIONAL--MISSION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "SPT2OD-4977 - Missing cross-reference refers to the complete operational journey planned from one initial position on the railway network to a final position on the railway network. Most commonly this can be exemplified by the commercial journey starting at a central station, passing through many regional stations before ending at a final central station somewhere else on the railway network.\n\nOne SPT2OD-4977 - Missing cross-reference may have many SPT2OD-4978 - Missing cross-reference and may be assigned to the responsibility of one or more SPT2OD-4967 - Missing cross-reference along the way.", -- "SPT2OD-4977 - Missing cross-reference refers to the complete operational journey planned from one initial position on the railway network to a final position on the railway network. Most commonly this can be exemplified by the commercial journey starting at a central station, passing through many regional stations before ending at a final central station somewhere else on the railway network.
\nOne SPT2OD-4977 - Missing cross-reference may have many SPT2OD-4978 - Missing cross-reference and may be assigned to the responsibility of one or more SPT2OD-4967 - Missing cross-reference along the way."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:OPERATIONAL--SCENARIO\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "See SPPR-2066 - ARCADIA Scenario", -- "dynamic and time-ordered interaction between operational elements: operational entities / actors or operational activities"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ORS--OPERATIONAL--REQUIREMENT--SPECIFICATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Operational Requirement Specification consists of a document bundle published by System Pillar's OA (SPPR-4033 ) as depicted in Diagram SPPR-3655 - Sub-processes of the operational analysis and their work-products.\n\n(TBD: detail while defining the documents created in Process SPPR-2240 - P2.5 Operational Design (System Level 2-3) )", -- "The Operational Requirement Specification consists of a document bundle published by System Pillar's OA (SPPR-4033 ) as depicted in Diagram SPPR-3655 - Sub-processes of the operational analysis and their work-products.
\n(TBD: detail while defining the documents created in Process SPPR-2240 - P2.5 Operational Design (System Level 2-3) )"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PERFORMANCE--%3C--OF--AN--ITEM--%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Performance is the ability of all technical and operational functions, in a specific operational context, to deliver a pre-defined and agreed level of service of the system and/or vehicle in operation.\n\n\n\n With the addition (and further clarification) that:\n\n The minimum level of performance is determined and influenced by technical and operational aspects on system, vehicle and operational level, such as but not limited to: reliability, availability, maintainability, safety, security, human factors, quality, mission profile, environment, environmental conditions and laws and regulations. This means the scope and boundaries (span of control) of performance need to be defined clearly.\n\n This also stresses why the inclusion of the principles of the RAM Policy to the ERJU activities for PRAMS, is of high importance.", -- "Performance is the ability of all technical and operational functions, in a specific operational context, to deliver a pre-defined and agreed level of service of the system and/or vehicle in operation.
\n
\n With the addition (and further clarification) that:
\n The minimum level of performance is determined and influenced by technical and operational aspects on system, vehicle and operational level, such as but not limited to: reliability, availability, maintainability, safety, security, human factors, quality, mission profile, environment, environmental conditions and laws and regulations. This means the scope and boundaries (span of control) of performance need to be defined clearly.
\n This also stresses why the inclusion of the principles of the RAM Policy to the ERJU activities for PRAMS, is of high importance."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PFH\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ average frequency of a dangerous failure per hour \n\n\n\naverage frequency of a dangerous failure of an E/E/PE safety related system to perform the \n\nspecified safety function over a given period of time \n\n\n\nNOTE 1 The term “probability of dangerous failure per hour” is not used in this standard but the acronym PFH has \n\nbeen retained but when it is used it means “average frequency of dangerous failure [h]". \n\nNOTE 2 From a theoretical point of view, the PFH is the average of the unconditional failure intensity, also called \n\nfailure frequency, and which is generally designated w(t). It should not be confused with a failure rate (see Annex B \n\nof IEC 61508-6). \n\nNOTE 3 When the E/E/PE safety-related system is the ultimate safety layer, the PFH should be calculated from its \n\nunreliability F(T)=1-R(t) (see “failure rate” above). When it is not the ultimate safety-related system its PFH should \n\nbe calculated from its unavailability U(t) (see PFD above). PFH approximations are given by F(T)/T and 1/MTTF in \n\nthe first case and 1/MTBF in the second case. \n\nNOTE 4 When the E/E/PE safety-related system implies only quickly repaired revealed failures then an asymptotic \n\nfailure rate λas is quickly reached. It provides an estimate of the PFH. \n\n\n\n[EN 61508-4:2010 - §3.6.19] """, -- """ average frequency of a dangerous failure per hour
\n
\naverage frequency of a dangerous failure of an E/E/PE safety related system to perform the
\nspecified safety function over a given period of time
\n
\nNOTE 1 The term “probability of dangerous failure per hour” is not used in this standard but the acronym PFH has
\nbeen retained but when it is used it means “average frequency of dangerous failure [h]".
\nNOTE 2 From a theoretical point of view, the PFH is the average of the unconditional failure intensity, also called
\nfailure frequency, and which is generally designated w(t). It should not be confused with a failure rate (see Annex B
\nof IEC 61508-6).
\nNOTE 3 When the E/E/PE safety-related system is the ultimate safety layer, the PFH should be calculated from its
\nunreliability F(T)=1-R(t) (see “failure rate” above). When it is not the ultimate safety-related system its PFH should
\nbe calculated from its unavailability U(t) (see PFD above). PFH approximations are given by F(T)/T and 1/MTTF in
\nthe first case and 1/MTBF in the second case.
\nNOTE 4 When the E/E/PE safety-related system implies only quickly repaired revealed failures then an asymptotic
\nfailure rate λas is quickly reached. It provides an estimate of the PFH.
\n
\n[EN 61508-4:2010 - §3.6.19] """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PFH\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "probability of dangerous failure per hour\n\n[EN 61508-4:2010]", -- "probability of dangerous failure per hour
\n[EN 61508-4:2010]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PFH\_lexConcept\_3 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "probability of dangerous failure per hour\n\n[SOURCE: EN 61508-4:2010]", -- "probability of dangerous failure per hour
\n[SOURCE: EN 61508-4:2010]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PHYSICAL--LINK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "means of communication/transport relating to the hosting of physical components, used as a medium by exchanges \n\n between behavioural components", -- "means of communication/transport relating to the hosting of physical components, used as a medium by exchanges
\n between behavioural components"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PHYSICAL--PORT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "connection point of one or more physical links allocated to a host component, by specifying how the component can be \n\n connected to the others or external actors", -- "connection point of one or more physical links allocated to a host component, by specifying how the component can be
\n connected to the others or external actors"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PLATEAU\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ A Plateau is a consistent requirement subset of the System Pillar Reference Architecture (SPRA) to be defined by the System Pillar domains. It can be used for market tenders in a specific timeframe and is recommended by and agreed across the sector.\n\n \n\n In the context of system engineering, a "plateau" refers to a distinct stage or phase within the system development lifecycle (SDLC) where progress or development remains relatively stable or flat for a period of time. It is characterized by a temporary pause or leveling off in the advancement or evolution of the system being developed. """, -- """ A Plateau is a consistent requirement subset of the System Pillar Reference Architecture (SPRA) to be defined by the System Pillar domains. It can be used for market tenders in a specific timeframe and is recommended by and agreed across the sector.
\n
\n In the context of system engineering, a "plateau" refers to a distinct stage or phase within the system development lifecycle (SDLC) where progress or development remains relatively stable or flat for a period of time. It is characterized by a temporary pause or leveling off in the advancement or evolution of the system being developed. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PLATEAU\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ In the context of system engineering, a "plateau" refers to a distinct stage or phase within the system development lifecycle (SDLC) where progress or development remains relatively stable or flat for a period of time. It is characterized by a temporary pause or leveling off in the advancement or evolution of the system being developed.\n\n\n\n During a plateau, the system or project may have reached a certain level of functionality, maturity, or completion. It can be seen as a natural phase in the development process, where the initial rapid progress slows down, and further enhancements or major changes are temporarily put on hold. This can occur for various reasons, such as: \n\n\* Technical Stability: The system has achieved a stable and functioning state, meeting the primary objectives or requirements defined for that particular stage of development. The focus during this phase may shift towards fine-tuning, optimization, and bug fixing.\n\n\* Resource Allocation: The allocation of resources, including personnel, time, and budget, may be temporarily redirected to other areas of priority. This can result in a pause in major advancements for the system on the plateau.\n\n\* Stakeholder Evaluation: Stakeholders may require time to evaluate and provide feedback on the current state of the system before proceeding to the next phase. This evaluation period can lead to a plateau in development activities.\n\n\* Planning and Preparation: The system engineering team may use the plateau phase to plan and prepare for the next stage of development. This includes conducting feasibility studies, conducting risk assessments, gathering requirements, or developing a roadmap for future enhancements or releases.\n\nWhile plateaus can be a temporary slowdown in the system development process, they can also provide opportunities for reflection, evaluation, and strategic decision-making. During this phase, system engineers and stakeholders can assess the current state of the system, address any outstanding issues or challenges, and plan for future iterations or developments.\n\n \n\n It's important for system engineers to effectively manage plateaus by maintaining clear communication with stakeholders, ensuring proper documentation, and utilizing the time and resources available to refine and improve the system before progressing to the next stage of development. """, -- """ In the context of system engineering, a "plateau" refers to a distinct stage or phase within the system development lifecycle (SDLC) where progress or development remains relatively stable or flat for a period of time. It is characterized by a temporary pause or leveling off in the advancement or evolution of the system being developed.
\n
\n During a plateau, the system or project may have reached a certain level of functionality, maturity, or completion. It can be seen as a natural phase in the development process, where the initial rapid progress slows down, and further enhancements or major changes are temporarily put on hold. This can occur for various reasons, such as:
\n\* Technical Stability: The system has achieved a stable and functioning state, meeting the primary objectives or requirements defined for that particular stage of development. The focus during this phase may shift towards fine-tuning, optimization, and bug fixing.
\n\* Resource Allocation: The allocation of resources, including personnel, time, and budget, may be temporarily redirected to other areas of priority. This can result in a pause in major advancements for the system on the plateau.
\n\* Stakeholder Evaluation: Stakeholders may require time to evaluate and provide feedback on the current state of the system before proceeding to the next phase. This evaluation period can lead to a plateau in development activities.
\n\* Planning and Preparation: The system engineering team may use the plateau phase to plan and prepare for the next stage of development. This includes conducting feasibility studies, conducting risk assessments, gathering requirements, or developing a roadmap for future enhancements or releases.
\nWhile plateaus can be a temporary slowdown in the system development process, they can also provide opportunities for reflection, evaluation, and strategic decision-making. During this phase, system engineers and stakeholders can assess the current state of the system, address any outstanding issues or challenges, and plan for future iterations or developments.
\n
\n It's important for system engineers to effectively manage plateaus by maintaining clear communication with stakeholders, ensuring proper documentation, and utilizing the time and resources available to refine and improve the system before progressing to the next stage of development. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:PROCESS--TASK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An atomic activity that is included within a process. It is used when the work in the Process is not broken down to a finer level of Process detail.\n\nAction intended to contribute to the achievement of one or more outcomes of a process.", -- "An atomic activity that is included within a process. It is used when the work in the Process is not broken down to a finer level of Process detail.
\nAction intended to contribute to the achievement of one or more outcomes of a process."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RADIO--BLOCK--CENTRE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Radio Block Centre is a computer-based system that elaborates messages to be sent to the train on basis of information received from external trackside systems and on basis of information exchanged with the on-board subsystems. The main objective of these messages is to provide movement authorities to allow the safe movement of trains on the Railway infrastructure area under the responsibility of the RBC. The interoperability requirements for the RBC are mainly related to the data exchange between the RBC and the on-board subsystem. (subset26-2)", -- "A centralised safety unit that receives train position information via radio and sends movement authorities via radio to trains."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RBD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "reliability block diagram\n\nlogical, graphical representation of a system showing how reliability of its sub items (represented by blocks) and combinations thereof, affect reliability of the system\n\n[SOURCE: IEC 60050-192:2015, 192-11-03]", -- "reliability block diagram
\nlogical, graphical representation of a system showing how reliability of its sub items (represented by blocks) and combinations thereof, affect reliability of the system
\n[SOURCE: IEC 60050-192:2015, 192-11-03]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:READER--CONTROLLER--THE--READER--CONTROLLER--MANAGES--STATES--AND--FAILURES--OF--THE--BIOME\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Reader Controller\n\n The Reader Controller manages states and failures of the Biometric Readerand/or the RFID Reader.", -- "Reader Controller
\n The Reader Controller manages states and failures of the Biometric Readerand/or the RFID Reader."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:REFERENCE--LOCATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ The reference location on the track which the train based distance reading refers to. It is used as a common location reference between the ERTMS/ETCS on-board and trackside equipment (according to the "Reference Location" definition in SUBSET-023, TSI 2023). """, -- "A location on the track (e.g. balise group reference location) used as a reference for the information sent from trackside or for the train position"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RELIABILITY--%3COF--AN--ITEM%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Ability to perform as required, without failure, for a given time interval, under given conditions. \n\nNote 1 to entry: The time interval duration can be expressed in units appropriate to the item concerned, e.g. \n\ncalendar time, operating cycles, distance run, etc. \n\nNote 2 to entry: Given conditions include aspects that affect reliability, such as: mode of operation, stress levels, \n\nenvironmental conditions, and maintenance. \n\nNote 3 to entry: Reliability can be quantified using measures defined in Section 192-05, Reliability related \n\nconcepts: measures. \n\n[SOURCE: IEC 60050-192:2015, 192-01-24] \n\nSource: SPPRAMSS-349 - [EN 50126-1:2017]", -- "Ability to perform as required, without failure, for a given time interval, under given conditions.
\nNote 1 to entry: The time interval duration can be expressed in units appropriate to the item concerned, e.g.
\ncalendar time, operating cycles, distance run, etc.
\nNote 2 to entry: Given conditions include aspects that affect reliability, such as: mode of operation, stress levels,
\nenvironmental conditions, and maintenance.
\nNote 3 to entry: Reliability can be quantified using measures defined in Section 192-05, Reliability related
\nconcepts: measures.
\n[SOURCE: IEC 60050-192:2015, 192-01-24]
\nSource: SPPRAMSS-349 - [EN 50126-1:2017]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:REQUIREMENT--STATEMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A requirement statement is the result of a formal transformation of one or more needs or parent requirements into an agreed-to obligation for an entity to perform some function or possess some quality within specified constraints with acceptable risk.\n\nRequirements are formal textual “shall” statements that communicate in a structured, natural language what an entity must do to realise the intent of the needs from which they were transformed. (Source: https://portal.incose.org/commerce/store?productId=INCOSE-GUIDEWRITINGREQ)", -- "A requirement statement is the result of a formal transformation of one or more needs or parent requirements into an agreed-to obligation for an entity to perform some function or possess some quality within specified constraints with acceptable risk.
\nRequirements are formal textual “shall” statements that communicate in a structured, natural language what an entity must do to realise the intent of the needs from which they were transformed. (Source: https://portal.incose.org/commerce/store?productId=INCOSE-GUIDEWRITINGREQ)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:REUSABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ The property of a sub-system to be integrated without any modification inside various CCS possibly deployed in different operation contexts. This is related to "cross acceptance" as defined in [EN50129]:{comment:1336} 3.1.7. {comment:1298} """, -- "The property of a sub-system to be integrated without any modification inside various CCS possibly deployed in different operation contexts.{comment:1298}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RFID--READER--RADIO--FREQUENCY--IDENTIFICATION--RFID--REFERS--TO--A--WIRELESS--SYSTEM--CO\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "RFID Reader\n\n Radio Frequency Identification (RFID) refers to a wireless system comprised of two components: tags and readers. The reader is a device that has one or more antennas that emit radio waves and receive signals back from the RFID tag. This reader permits the authentication of the actor.", -- "RFID Reader
\n Radio Frequency Identification (RFID) refers to a wireless system comprised of two components: tags and readers. The reader is a device that has one or more antennas that emit radio waves and receive signals back from the RFID tag. This reader permits the authentication of the actor."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RISK--%3COF--A--HAZARD%3E\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ combination of the probability of occurrence of accident and the severity of that accident\n\n \n\n Note 1 to entry: In French, the term “risque” also denotes the potential source of harm, in English “hazard” (see 903-01-02) SPPRAMSS-4044 - Hazard .\n\n [SOURCE: IEC 60050-903:2013, 903-01-07, modified — <of a hazard> has been added and "harm" has been replaced with "accident"] """, -- """ combination of the probability of occurrence of accident and the severity of that accident
\n
\n Note 1 to entry: In French, the term “risque” also denotes the potential source of harm, in English “hazard” (see 903-01-02) SPPRAMSS-4044 - Hazard .
\n [SOURCE: IEC 60050-903:2013, 903-01-07, modified — <of a hazard> has been added and "harm" has been replaced with "accident"] """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RISK--ANALYSIS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "systematic use of available information to identify hazards and to estimate the risk \n\n[Source: IEC 60050-903:2013, 903-01-08]", -- "systematic use of available information to identify hazards and to estimate the risk
\n[Source: IEC 60050-903:2013, 903-01-08]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RISK--ASSESSMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "overall process comprising a risk analysis and a risk evaluation\n\n[Source: IEC 60050-903:2013, 903-01-10]", -- "overall process comprising a risk analysis and a risk evaluation
\n[Source: IEC 60050-903:2013, 903-01-10]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RISK--EVALUATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "procedure based on the risk analysis to determine whether the tolerable risk has been achieved \n\n[Source: IEC 60050-903:2013, 903-01-09]", -- "procedure based on the risk analysis to determine whether the tolerable risk has been achieved
\n[Source: IEC 60050-903:2013, 903-01-09]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:RISK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Value of damage and mitigation for a hazard.", -- "The combination of the frequency, probability, and the consequence of a specified hazardous event."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:ROLL--AWAY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An unintended and non-powered movement of the train in a direction, which conflicts with the current position of the direction \n\ncontroller in the active desk.\n\nReference: Glossary of Terms and Abbreviation. SUBSET-023. Issue 4.0.0", -- "An unintended and non-powered movement of the train in a direction, which conflicts with the current position of the direction controller in the active desk."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SAFE--STATE--\_821-12-49\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "condition which continues to preserve safety \n\n \n\n[SOURCE: IEC 62425:2007, 3.1.42]", -- "condition which continues to preserve safety
\n
\n[SOURCE: IEC 62425:2007, 3.1.42]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SAFE--STATE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "condition which continues to preserve safety\n\n [Source: IEC 60050-821, 821-12-49]", -- "A condition which continues to preserve safety."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SAFE--STATE\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "condition which continues to preserve safety \n\n [821-12-49][IEC 62425:2007, 3.1.42]", -- "condition which continues to preserve safety
\n [Source: IEC 60050-821, 821-12-49]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SAFETY--ENVIRONMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Safety Environment refers to the software needed to provide the services of the Safety Layer in one single Compartment.\n\n\n\n Previous definition: The Safety Environment refers to all Safety Environment Tasks needed for a Functional System.", -- "The Safety Environment refers to the software needed to provide the services of the Safety Layer in one single Compartment.
\n
\n Previous definition: The Safety Environment refers to all Safety Environment Tasks needed for a Functional System."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SAFETY--FRAMEWORK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Safety Framework refers to all Safety Environment Replicas needed for a Functional System.\n\n\n\n Previous definition: new term", -- "The Safety Framework refers to all Safety Environment Replicas needed for a Functional System.
\n
\n Previous definition: new term"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SCENARIO\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Scenarios are diagrams that describe the interactions between structural elements by focusing on the exchange of information in a given context and with a time axis. They allow the ordering of information sequences and behaviours of structural elements, but can also be used as a basis for specification tests. Finally, their constitution, from top to bottom and from right to left, makes it easier to understand the elements described, even for people unfamiliar with an MBSE approach. Scenarios can be linked to sequence diagrams (SysML wording).\n\n \n\nScope:\n\n \n\nScenarios are suitable to be used for the following model elements:\n\n \n\n\* Regarding abstraction levels: operational analysis, system analysis, logical architecture, physical architecture\n\n\* Regarding structural entities: system, system element, logical component, interface layer component\n\n\* Regarding functions: behaviour definition of function (how functions of structural entities exchange data through exchange items)\n\n\* Regarding other behavioural aspects: pre and postconditions and invariants as start to end conditions as well as state invariants of the scenario\n\n\* Regarding purpose: represent, at least, one complete sequence of functional exchanges on a time axis\n\nScenarios are often used with a capability perspective depending on the implementation conditions (pre and post-conditions) and describing a specific context at the system, logical and physical structural elements. For example:\n\n \n\n\* Visualise an initial sequence to achieve a system capability's outcome.\n\n\* Visualise interactions between entities to achieve the system capability with an acceptable level of risk.\n\n\* Visualise system black-box behaviour or system interaction behaviour with actors.", -- "dynamic interaction between elements like the system and the actors, components or between functions"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SECRAC\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "security-related application condition\n\n[SOURCE: CLC/TS 50701:2023]", -- "security-related application condition
\n[SOURCE: CLC/TS 50701:2023]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SECURE--COMPONENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "An implementation, as part of the rail automation system, which comprises system components, such as host devices, embedded devices, network devices or software applications, that implement security capabilities and consisting of a physical encasing, computing capabilities and network communication, and interfacing to the Shared Security Services\n\n Examples of CCS secure components are object controller, trackside cabinet, IXL rack, ATO-OB, OBU, ATO-TS, IXL/RBC combination, shared security services…)", -- "An implementation, as part of the rail automation system, which comprises system components, such as host devices, embedded devices, network devices or software applications, that implement security capabilities and consisting of a physical encasing, computing capabilities and network communication. Interfacing to SharedSecurity Services
\n Examples of CCS secure components are object controller, trackside cabinet, IXL rack, ATO-OB, OBU, ATO-TS, IXL/RBC combination,…)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SEMP--REQUIREMENTS--TYPES\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Common Business Objectives (CBO): High level objectives defining the mandate of the System Pillar. They are derived by Tasks and domains. They are not created in the Tasks and Domains. They can be formulated freely;{comment:48}\n\n\* Railway Requirements: are operational epics that formulate concrete visions and user stories for the business target picture of an operational area (like CCS or Energy). The can be freely formulated but should follow the writing patterns of epics and user stories. They shall be specific enough to be assigned to exactly one System Pillar Task;{comment:49}\n\n\* Operational Requirements: Are precise requirements that the Operational Analysis shall fulfil. {comment:24}They include PRAMSS and other non functional requirements;\n\n\* Functional System Requirements: {comment:7}they are system requirements that the System Analysis, Logical Architecture or Subsystem Architecture shall fulfil and specify the functions of the System;{comment:14}\n\n\* Non-Functional System Requirements: Are precise {comment:15}requirements that the System Analysis, Logical Architecture or Subsystem Architecture{comment:8} shall fulfil. They include PRAMSS and other non functional requirements.{comment:19}\n\n\* Application Conditions + SRAC definitions: are precise requirements that the {comment:25}environment of the System In Use shall fulfill. They include physical needs, skill levels of maintenance personal, temperatures of server rooms, engineering rules, etc. The SRAC{comment:58} are specific application conditions relevant to safety.", -- "\* Common Business Objectives (CBO): High level objectives defining the mandate of the System Pillar. They are derived by Tasks and domains. They are not created in the Tasks and Domains. They can be formulated freely;{comment:48}
\n\* Railway Requirements: are operational epics that formulate concrete visions and user stories for the business target picture of an operational area (like CCS or Energy). The can be freely formulated but should follow the writing patterns of epics and user stories. They shall be specific enough to be assigned to exactly one System Pillar Task;{comment:49}
\n\* Operational Requirements: Are precise requirements that the Operational Analysis shall fulfil. {comment:24}They include PRAMSS and other non functional requirements;
\n\* Functional System Requirements: {comment:7}they are system requirements that the System Analysis, Logical Architecture or Subsystem Architecture shall fulfil and specify the functions of the System;{comment:14}
\n\* Non-Functional System Requirements: Are precise {comment:15}requirements that the System Analysis, Logical Architecture or Subsystem Architecture{comment:8} shall fulfil. They include PRAMSS and other non functional requirements.{comment:19}
\n\* Application Conditions + SRAC definitions: are precise requirements that the {comment:25}environment of the System In Use shall fulfill. They include physical needs, skill levels of maintenance personal, temperatures of server rooms, engineering rules, etc. The SRAC{comment:58} are specific application conditions relevant to safety."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SERIOUS--ACCIDENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "‘serious accident’ means any train collision or derailment of trains resulting in the death of at least one person or serious injuries to five or more persons or extensive damage to rolling stock, the infrastructure or the environment, and any other accident with the same consequences which has an obvious impact on railway safety regulation or the management of safety; ‘extensive damage’ means damage that can be immediately assessed by the investigating body to cost at least EUR 2 million in total;\n\n[SOURCE: SPPRAMSS-337 - [Directive (EU) 2016/798] Article 3 Definitions (12) ]", -- "any train collision or derailment of trains resulting in the death of at least one person or serious injuries to five or more persons or extensive damage to rolling stock, the infrastructure or the environment, and any other accident with the same consequences which has an obvious impact on railway safety regulation or the management of safety; ‘extensive damage’ means damage that can be immediately assessed by the investigating body to cost at least EUR 2 million in total"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SIL2--HAZARD--MITIGATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Safety requirement regarding activities for lowering the effect of a hazard. It reduces the damage to people, property, and the environment by lowering the frequency, damping the consequences.\n\nUnlike a safety invariant, a mitigation may not be enforced in a predictable fashion, for instance because it addresses hazards that cannot be influenced by they system themselves. For instance, trespassers on the track cannot be influenced by the railway system.\n\nA mitigation can be a realized by\n\n \n\n\* fault detection (hazard will be detected), typically this needs additional activities\n\n\* failure reaction (after detection the hazard will be excluded), typically this needs additional activities\n\n\* SRAC safety application condition (hazard will be avoided principly)", -- "Safety requirement regarding activities for lowering the effect of a hazard. It reduces the damage to people, property, and the environment by lowering the frequency, damping the consequences.
\nUnlike a safety invariant, a mitigation may not be enforced in a predictable fashion, for instance because it addresses hazards that cannot be influenced by they system themselves. For instance, trespassers on the track cannot be influenced by the railway system.
\nA mitigation can be a realized by
\n
\n\* fault detection (hazard will be detected), typically this needs additional activities
\n\* failure reaction (after detection the hazard will be excluded), typically this needs additional activities
\n\* SRAC safety application condition (hazard will be avoided principly)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SIL4--SAFETY--INVARIANT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Safety invariants are safety requirements typically designed to address SIL4 hazards. Safety invariants defining conditions or properties critical to avoid such a SIL4 hazrard.\n\nThe safety invariant shall be maintained true at any time during operations so that the system does not enter into a hazardous state or condition.\n\nSafety invariants shall be constantly monitored and predictably enforced during operations. \n\n \n\n\* Predictably enforced means that the system shall, by design, avoid to enter conditions deviating from the invariant.\n\n The acknowledge execution principle is normally applied (e.g., a train enters a switch only after the switch move to position is acknowledged as safey finished).\n\n As such, Invariants are often used in formal methods to validate the system design. They may also be input to fault tree analysis, or other safety assessment techniques to ensure the robustness and reliability of systems towards defects.\n\n\* Continuously monitored means that the invariant fulfillment shall be measured continuously or frequently enough to detect deviations early enough to mitigate them effitciently. Deviations shall lead to a immediate corrective actions to prevent accidents or failures (safety reaction).", -- "Safety invariants are safety requirements typically designed to address SIL4 hazards. Safety invariants defining conditions or properties critical to avoid such a SIL4 hazrard.
\nThe safety invariant shall be maintained true at any time during operations so that the system does not enter into a hazardous state or condition.
\nSafety invariants shall be constantly monitored and predictably enforced during operations.
\n
\n\* Predictably enforced means that the system shall, by design, avoid to enter conditions deviating from the invariant.
\n The acknowledge execution principle is normally applied (e.g., a train enters a switch only after the switch move to position is acknowledged as safey finished).
\n As such, Invariants are often used in formal methods to validate the system design. They may also be input to fault tree analysis, or other safety assessment techniques to ensure the robustness and reliability of systems towards defects.
\n\* Continuously monitored means that the invariant fulfillment shall be measured continuously or frequently enough to detect deviations early enough to mitigate them effitciently. Deviations shall lead to a immediate corrective actions to prevent accidents or failures (safety reaction)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SINGLE--EUROPEAN--RAILWAY--AREA-----COMMAND--CONTROL--AND--SIGNALING\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "For the railway sector, EU policy focuses on the main goal of establishing a single European railway area, an EU-wide system of railway networks which would allow the expansion of the rail sector based on\n\n \n\n\* competition,\n\n\* technical harmonization and\n\n\* joint development of cross-border connections\n\n[see Building the single European railway area].\n\n \n\n To this end, the EU aims to:\n\n \n\n\* open and restructure the rail market\n\n\* increase competitiveness by creating a level playing field for companies\n\n\* develop infrastructure to ensure interoperability\n\n\* improve efficiency in infrastructure use and safety\n\n\* ensure fair prices for consumers{comment:5}\n\nSERA-CCS is understood to consist of those SERA objectives which are relevant for CCS (technical/operational target). It is defined by the following capabilities:\n\n \n\n\* Provides Independence between Infrastructure Managers (IM) and Railway Undertakings (RU) or Vehicle Owners (VO):\n\n \* No track access restriction or extra costs for a compliant RU/VO fleet/services accessing a given IM infrastructure compliant with SERA-CCS.\n\n \* Non discriminatory access to IM services and capacity allocation across SERA-CCS IMs for compliant RU/VO fleet/services.\n\n\* Ensures interoperability, which is the ability to allow the safe and uninterrupted movement of trains that accomplish the specified levels of performance across different infrastructure networks (IMs) and the ability that an infrastructure network is able to interact with trains of different RUs/VOs.\n\n\* Ensures Harmonized Operations, based on:\n\n \* Radio-based CAB Signalling,\n\n \* Automatic Train{comment:1} Operation (ATO),\n\n \* Single licensing for Drivers and Signalers across SERA-CCS.\n\n\* Provides Backwards Compatibility:\n\n \* Compatibility is considered to be achieved for a particular combination of on-board and trackside when the on-board is able to run a normal service on that trackside. The expression “train is running a normal service” shall be understood as “a train not penalized because of a reduction of performance or safety”.\n\n \* {comment:2}The full functionality of any old version shall always be available in any new version of SERA-CCS\n\n\* Enables significantly lower life cycle costs having easy Upgradability, Scaleability, Adaptability and Changeability of Hardware and Software components/systems/subsystems\n\n\* Consists of a Modular Architecture, both trackside and onboard:\n\n \* Trackside and Onboard architecture are designed to allow for separate replacements/upgrades of individual sub-systems with reasonable integration effort.\n\n\* Enables Interchangeability of hardware and software components/systems/subsystems across suppliers\n\n \* The modular architecture shall also allow for situations where the replacement/upgrade of individual components from different suppliers is needed.\n\n\n\n{comment:4}", -- "For the railway sector, EU policy focuses on the main goal of establishing a single European railway area, an EU-wide system of railway networks which would allow the expansion of the rail sector based on
\n
\n\* competition,
\n\* technical harmonization and
\n\* joint development of cross-border connections
\n[see Building the single European railway area].
\n
\n To this end, the EU aims to:
\n
\n\* open and restructure the rail market
\n\* increase competitiveness by creating a level playing field for companies
\n\* develop infrastructure to ensure interoperability
\n\* improve efficiency in infrastructure use and safety
\n\* ensure fair prices for consumers{comment:5}
\nSERA-CCS is understood to consist of those SERA objectives which are relevant for CCS (technical/operational target). It is defined by the following capabilities:
\n
\n\* Provides Independence between Infrastructure Managers (IM) and Railway Undertakings (RU) or Vehicle Owners (VO):
\n \* No track access restriction or extra costs for a compliant RU/VO fleet/services accessing a given IM infrastructure compliant with SERA-CCS.
\n \* Non discriminatory access to IM services and capacity allocation across SERA-CCS IMs for compliant RU/VO fleet/services.
\n\* Ensures interoperability, which is the ability to allow the safe and uninterrupted movement of trains that accomplish the specified levels of performance across different infrastructure networks (IMs) and the ability that an infrastructure network is able to interact with trains of different RUs/VOs.
\n\* Ensures Harmonized Operations, based on:
\n \* Radio-based CAB Signalling,
\n \* Automatic Train{comment:1} Operation (ATO),
\n \* Single licensing for Drivers and Signalers across SERA-CCS.
\n\* Provides Backwards Compatibility:
\n \* Compatibility is considered to be achieved for a particular combination of on-board and trackside when the on-board is able to run a normal service on that trackside. The expression “train is running a normal service” shall be understood as “a train not penalized because of a reduction of performance or safety”.
\n \* {comment:2}The full functionality of any old version shall always be available in any new version of SERA-CCS
\n\* Enables significantly lower life cycle costs having easy Upgradability, Scaleability, Adaptability and Changeability of Hardware and Software components/systems/subsystems
\n\* Consists of a Modular Architecture, both trackside and onboard:
\n \* Trackside and Onboard architecture are designed to allow for separate replacements/upgrades of individual sub-systems with reasonable integration effort.
\n\* Enables Interchangeability of hardware and software components/systems/subsystems across suppliers
\n \* The modular architecture shall also allow for situations where the replacement/upgrade of individual components from different suppliers is needed.
\n
\n{comment:4}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SITUATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A logical combination of modes and states using logical operations (AND, OR, NOT) representing the superposition of modes \n\n and states occurring simultaneously at a given moment.", -- "A logical combination of modes and states using logical operations (AND, OR, NOT) representing the superposition of modes
\n and states occurring simultaneously at a given moment."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SOFT--KEY--CONTEXT-DEPENDENT--KEY--WHICH--CONSISTS--OF--A--HARD--KEY--WITH--AN--ASSOCIATED--L\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Soft Key\n\n Context-dependent key which consists of a Hard Key with an associated label on the Display Area. When using a soft key technology, the driver action is done via the Hard Key adjacent to the label.", -- "Soft Key
\n Context-dependent key which consists of a Hard Key with an associated label on the Display Area. When using a soft key technology, the driver action is done via the Hard Key adjacent to the label."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SPECIFICATION--TASK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Result: specification for an artifact\n\n\* Usually ends on CENELEC P4\n\n\* Left side of the CENELEC “V”", -- "\* Result: specification for an artifact
\n\* Usually ends on CENELEC P4
\n\* Left side of the CENELEC “V”"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SRD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Single Rules Database\n\n[SOURCE: ERA, https://www.era.europa.eu/domains/registers/srd\_en ]", -- "Single Rules Database
\n[SOURCE: ERA, https://www.era.europa.eu/domains/registers/srd\_en ]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:STAKEHOLDER--NEEDS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "These needs are taken into account for the definition of the System of interest.\n\n Note: In the Europe's Rail context, stakeholder needs are defined by valid input channels, which are\n\n - Decided SP Common Business Objectives as the top-level of the requirement tree,\n\n - Requirements proposed by any party and approved in the SP decision process according to SP governance.", -- "These needs are taken into account for the definition of the System of interest.
\n Note: In the Europe's Rail context, stakeholder needs are defined by valid input channels, which are
\n - Decided SP Common Business Objectives as the top-level of the requirement tree,
\n - Requirements proposed by any party and approved in the SP decision process according to SP governance."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:STAKEHOLDER\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Someone who is entitled to express needs for the system of interest.\n\nNote: In the Europe's Rail context, the list of stakeholders is defined by the members of the System Pillar Steering group and their delegates or speakers.", -- "Someone who is entitled to express needs for the system of interest.
\nNote: In the Europe's Rail context, the list of stakeholders is defined by the members of the System Pillar Steering group and their delegates or speakers."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:STANDARD\_ROUTINE--OPERATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "operational production processes that routinely occur in the day-to-day of an operational railway network, both non-degraded operations and routine degraded operations.\n\nStandard/routine operation apply to all operational categories - i.e. All GoA levels,", -- "operational processes that routinely occur in the day-to-day of an operational railway network, both non-degraded operations and routine degraded operations.
\nStandard/routine operation apply to all operational categories - i.e. All GoA levels,"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:STPA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "System Theoretic Process Analysis\n\n[Source: J3187:202305]", -- "System Theoretic Process Analysis
\n[Source: J3187:202305]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SUB-SYSTEM--SOMETIMES--CALLED--\_BUILDING--BLOCK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Sub-systems are along ARCADIA systems on System Level 5. Not to be confused with sub-systems in the TSI / interoperability directive. In the TSI / interoperability directive context a sub-system shall be regarded as a interoperability constituent\n\n A sub-system is a part of a system, which is not split into smaller entities. It represents a leaf element in the hierarchy of systems-of-systems.\n\n Physically speaking, a sub-system is either a piece of hardware plus software, or just a piece of software.\n\n A sub-system is a source able unit of the CCS system, in particular: \n\n\* a sub-system can be individually tendered to a supplier,\n\n\* a sub-system can be built individually by a supplier,\n\n\* a sub-system must be integrated into a system, which includes all necessary test, verification, certification and validation activities depending on the level of harmonisation.\n\nThe harmonisation of the sub-system’s features is to be defined according to the requested level: \n\n \n\n\* Functional Apportionment,\n\n\* Interoperability,\n\n\* Exchangeability, or\n\n\* Interchangeability.", -- "Sub-systems are along ARCADIA systems on System Level 5. Not to be confused with sub-systems in the TSI / interoperability directive. In the TSI / interoperability directive context a sub-system shall be regarded as a interoperability constituent
\n A sub-system is a part of a system, which is not split into smaller entities. It represents a leaf element in the hierarchy of systems-of-systems.
\n Physically speaking, a sub-system is either a piece of hardware plus software, or just a piece of software.
\n A sub-system is a source able unit of the CCS system, in particular:
\n\* a sub-system can be individually tendered to a supplier,
\n\* a sub-system can be built individually by a supplier,
\n\* a sub-system must be integrated into a system, which includes all necessary test, verification, certification and validation activities depending on the level of harmonisation.
\nThe harmonisation of the sub-system’s features is to be defined according to the requested level:
\n
\n\* Functional Apportionment,
\n\* Interoperability,
\n\* Exchangeability, or
\n\* Interchangeability."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SUBSYSTEM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Subsystems are along ARCADIA systems with standard interfaces on System Level 5. Not to be confused with subsystems in the TSI / interoperability directive.\n\n A subsystem is a part of a system, which is not refined any further during the specification task(The term subsystem is used in this document following the referenced architecting standards, it does not correspond to the subsystem definition as in the Interoperability Directive.). It represents a leaf element in the hierarchy of systems-of-systems. A subsystem is defined by the following characteristics:\n\n\* For each subsystem exists a set of specification documents, that allows a supplier to build that subsystem, ideally without the need for further documentation.\n\n\* The level of strictness of the specification can be variable:\n\n \* Interoperable specification: Strict standardisation of all interface aspects that are needed for to systems to fulfil a defined set of operational capabilities together on runtime.\n\n \* Interchangeable specification: Standardisation of all interface aspects that are needed to exchange one of the systems with the lowest reasonable integration effort.\n\n \* Core standardisation specification: An interoperable standardisation that defines a guaranteed minimum of interoperability, but allows and gives room for specific and perhaps incompatible extensions that are only used, when all involved systems have them.\n\n \* Guideline: A recommended specification that can be used as a whole, or can be used partly or changed.\n\n\* A subsystem can be implemented as software only, as hardware only, as a mixture of both depending on the strictness of the specification (the specification can leave that aspect open).\n\n\* Each subsystem can be individually tendered to a supplier\n\n\* Each subsystem can be built individually by a supplier\n\n\* Each subsystem must be integrated into a system, which includes all necessary test, verification, certification and validation activities.\n\nSome non-functional requirements (e.g. weight constraints or physical dimension constraints) will be allocated to subsystems.", -- "Subsystems are along ARCADIA systems with standard interfaces on System Level 5. Not to be confused with subsystems in the TSI / interoperability directive.
\n A subsystem is a part of a system, which is not refined any further during the specification task(The term subsystem is used in this document following the referenced architecting standards, it does not correspond to the subsystem definition as in the Interoperability Directive.). It represents a leaf element in the hierarchy of systems-of-systems. A subsystem is defined by the following characteristics:
\n\* For each subsystem exists a set of specification documents, that allows a supplier to build that subsystem, ideally without the need for further documentation.
\n\* The level of strictness of the specification can be variable:
\n \* Interoperable specification: Strict standardisation of all interface aspects that are needed for to systems to fulfil a defined set of operational capabilities together on runtime.
\n \* Interchangeable specification: Standardisation of all interface aspects that are needed to exchange one of the systems with the lowest reasonable integration effort.
\n \* Core standardisation specification: An interoperable standardisation that defines a guaranteed minimum of interoperability, but allows and gives room for specific and perhaps incompatible extensions that are only used, when all involved systems have them.
\n \* Guideline: A recommended specification that can be used as a whole, or can be used partly or changed.
\n\* A subsystem can be implemented as software only, as hardware only, as a mixture of both depending on the strictness of the specification (the specification can leave that aspect open).
\n\* Each subsystem can be individually tendered to a supplier
\n\* Each subsystem can be built individually by a supplier
\n\* Each subsystem must be integrated into a system, which includes all necessary test, verification, certification and validation activities.
\nSome non-functional requirements (e.g. weight constraints or physical dimension constraints) will be allocated to subsystems."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SWITCH--PHYSICAL--COMPONENT--WHICH--ALLOWS--A--SELECTION--OF--2--TO--N--STATES--AND--KEEPS--TH\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Switch\n\n Physical component which allows a selection of 2 to N states and keeps the state until its position is changed.", -- "Switch
\n Physical component which allows a selection of 2 to N states and keeps the state until its position is changed."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SWITCH\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Switch", -- "A unit of track comprising two fixed rails (stock rails) and two movable rails (switch rails) used to direct vehicles from one track to another track."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SWITCH\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "a switch is a device that opens or closes electrical circuits.", -- "A unit of track comprising two fixed rails (stock rails) and two movable rails (switch rails) used to direct vehicles from one track to another track."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SWITCH\_lexConcept\_3 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "a switch is a device that opens or closes electrical circuits.", -- "Switch"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SWITCH\_lexConcept\_4 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Electrical switch. Closes or opens a circuit.", -- "a switch is a device that opens or closes electrical circuits."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--ACTOR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Actors are entities outside the system under consideration (either humans or other technical systems) that interact with the system through its interfaces.", -- "Actors are entities outside the system (either humans or other technical systems) that interact with the system."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--AND--INNOVATION--PROGRAMME--BOARD\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "System and Innovation Programme Board\n\n advises the Executive Director on project and programme management of the JU including interaction between the two pillars as well as change management and conflicts, supported by the System Pillar Core Group", -- "System and Innovation Programme Board
\n advises the Executive Director on project and programme management of the JU including interaction between the two pillars as well as change management and conflicts, supported by the System Pillar Core Group"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--CAPABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The system capability as part of the the system analysis is the system’s expected ability to provide a high-level service allowing it to carry out an operational objective. A system capability represents a system usage context. It is characterised by a set of functional chains and scenarios that it references, and which more precisely describes the conditions for performing the system functions that contribute to it. A capability can also reference a function that contributes to it by itself. A capability can use one or more other capabilities that it will reference. \n\n Although the ARCADIA method describes system capabilities from the system perspective. We have decided that a deviation from the established method is preferred for our purposes. So the system capabilities shall be written from an actor's perspective, similar to use cases. In order to have a greater distinction between capability and function and to be compatible with SysML.", -- "A System capability is a service an actor requires from the system to fulfil its business goals. System capabilities are realised by exploiting one or multiple Functions, usually in a chain of functions. System capabilities in terms of this document are very similar to Use cases and the theory behind it."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--CAPABILITY\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The system capability as part of the the system analysis is the system’s expected ability to provide a high-level service allowing it to carry out an operational objective. A system capability represents a system usage context. It is characterised by a set of functional chains and scenarios that it references, and which more precisely describes the conditions for performing the system functions that contribute to it. A capability can also reference a function that contributes to it by itself. A capability can use one or more other capabilities that it will reference. \n\n Although the ARCADIA method describes system capabilities from the system perspective. We have decided that a deviation from the established method is preferred for our purposes. So the system capabilities shall be written from an actor's perspective, similar to use cases. In order to have a greater distinction between capability and function and to be compatible with SysML.", -- "Ability of the system to provide a service that support the realisation of high-level operational objectives (including the contribution of the system to an operational capability)."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--DEVELOPMENT--LIFE--CYCLE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The System Development Life Cycle (SDLC) is a structured approach or methodology used in system engineering to guide the creation, deployment, and maintenance of systems. It provides a systematic framework for managing and controlling the entire process of building a system, from inception to retirement.\n\n The SDLC provides a structured approach to system development, ensuring that all necessary activities are carried out in a logical and controlled manner. It helps in managing risks, controlling costs, and delivering high-quality systems that meet stakeholder expectations.", -- "The System Development Life Cycle (SDLC) is a structured approach or methodology used in system engineering to guide the creation, deployment, and maintenance of systems. It provides a systematic framework for managing and controlling the entire process of building a system, from inception to retirement.
\n The SDLC provides a structured approach to system development, ensuring that all necessary activities are carried out in a logical and controlled manner. It helps in managing risks, controlling costs, and delivering high-quality systems that meet stakeholder expectations."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--FUNCTION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A SPPR-2598 - Function derived during system analysis.", -- "A function derived during system analysis."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--LEVELS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The following figure shows the decomposition of a system of systems on one consistent example spanning 5 layers of refinement. Level 5 is the actual subsystem layer and is visually integrated into the bottom layer in the following figure to be able to show the relationship to logical components. \n\n(image: 1-screenshot-20221229-202431.png)\n\nFigure {caption:Figure}: System Level 1-5 combined view", -- "The following figure shows the decomposition of a system of systems on one consistent example spanning 5 layers of refinement. Level 5 is the actual subsystem layer and is visually integrated into the bottom layer in the following figure to be able to show the relationship to logical components.
\n(image: 1-screenshot-20221229-202431.png)
\nFigure {caption:Figure}: System Level 1-5 combined view"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--OF--SYSTEMS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "According to ISO 21839, a system of systems is set of systems that interact to provide a unique capability that none of the constituent systems can accomplish on its own.\n\nA system of systems in our understanding at least comprises two constituent systems.\n\nA system of systems itself can be nested as a constituent system in a larger system of systems, i.e. system of systems can span multiple levels recursively.", -- "According to ISO 21839, a system of systems is set of systems that interact to provide a unique capability that none of the constituent systems can accomplish on its own.
\nA system of systems in our understanding at least comprises two constituent systems.
\nA system of systems itself can be nested as a constituent system in a larger system of systems, i.e. system of systems can span multiple levels recursively."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--PILLAR--CORE--GROUP\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "System Pillar Core Group\n\n Manages the common business objectives and deliverables from the Tasks", -- "System Pillar Core Group
\n Manages the common business objectives and deliverables from the Tasks"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--PILLAR--DELIVERABLES--\_OUTPUT--DOCUMENTS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Deliverables are “output documents” that are automatically or manually created and exported from the engineering database (ALM) in the predefined structure of the SP deliverable templates\n\n \n\n List of deliverables per subsystem (System Level 5).\n\n ORS is done for System Level 3, and then tailored for the subsystems (especially CONEMP processes are done only on System Level 5).\n\n \n\n System specific Operational Requirement Specification (ORS)\n\n D2.1 As-Is analysis D2.2 Referred CBO and railway requirements D2.3 Problem analysis and derived process improvements D2.4 Application categories D2.5 Operational requirements (incl. non-functional and process requirements) D2.6 Operational entities and actor D2.7 Operational capabilities D2.8 PRAMSS targets, strategies and indicators D2.9 Operational processes D2.10 Operational hazards and risks D2.11 Rule books for all actors D2.12 The concept for the operational migrationFunctional Requirement Specification (FRS)\n\n D3.1 System definition D3.2 Detailed system actor descriptions and roles D3.3 System capabilities D3.4 Functional chains and sequences per capability D3.5 Function specification D3.6 Functional hazards and risksSystem requirement Specification (SRS)\n\n D4.1 Architecture of systems of the next level (if standardized) D4.2 Functional allocation to logical components D4.3 Physical architecture D4.4 Technical and physical hazards and risks D4.5 The technical migration strategy is defined D4.6 System requirements and interface specification, incl. legacy adpaters D4.7 Non-functional System requirementsApplication specification (ARS)\n\n D5.1 Release and Implementation Configurations D5.2 Application conditions, CSM/CST, HSI Plan D5.3 Application/life cycle/usage guideline/rules D5.4 Engineering and maintenance guideline/rules D5.5 Validation and test specificationValidation and test specification (VRS)\n\n D6.1 Model checking specification D6.2 Simulation/test environment specification D6.3 Simulation/test/validation cases and dataStandardisation and CCM documentation\n\n D7.1 Standardisation packages and publications D7.2 External quality and experience monitoring for the standard is set up D7.2 External change management documentation", -- "Deliverables are “output documents” that are automatically or manually created and exported from the engineering database (ALM) in the predefined structure of the SP deliverable templates
\n
\n List of deliverables per subsystem (System Level 5).
\n ORS is done for System Level 3, and then tailored for the subsystems (especially CONEMP processes are done only on System Level 5).
\n
\n System specific Operational Requirement Specification (ORS)
\n D2.1 As-Is analysis D2.2 Referred CBO and railway requirements D2.3 Problem analysis and derived process improvements D2.4 Application categories D2.5 Operational requirements (incl. non-functional and process requirements) D2.6 Operational entities and actor D2.7 Operational capabilities D2.8 PRAMSS targets, strategies and indicators D2.9 Operational processes D2.10 Operational hazards and risks D2.11 Rule books for all actors D2.12 The concept for the operational migrationFunctional Requirement Specification (FRS)
\n D3.1 System definition D3.2 Detailed system actor descriptions and roles D3.3 System capabilities D3.4 Functional chains and sequences per capability D3.5 Function specification D3.6 Functional hazards and risksSystem requirement Specification (SRS)
\n D4.1 Architecture of systems of the next level (if standardized) D4.2 Functional allocation to logical components D4.3 Physical architecture D4.4 Technical and physical hazards and risks D4.5 The technical migration strategy is defined D4.6 System requirements and interface specification, incl. legacy adpaters D4.7 Non-functional System requirementsApplication specification (ARS)
\n D5.1 Release and Implementation Configurations D5.2 Application conditions, CSM/CST, HSI Plan D5.3 Application/life cycle/usage guideline/rules D5.4 Engineering and maintenance guideline/rules D5.5 Validation and test specificationValidation and test specification (VRS)
\n D6.1 Model checking specification D6.2 Simulation/test environment specification D6.3 Simulation/test/validation cases and dataStandardisation and CCM documentation
\n D7.1 Standardisation packages and publications D7.2 External quality and experience monitoring for the standard is set up D7.2 External change management documentation"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--PILLAR--STEERING--GROUP\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "System Pillar Steering Group\n\n monitoring the progress of the System Pillar", -- "System Pillar Steering Group
\n monitoring the progress of the System Pillar"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--PILLAR--UNIT--CHAIRS--THE--SYSTEM--PILLAR--CORE--GROUP\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "System Pillar Unit\n\n Chairs the System Pillar Core Group", -- "System Pillar Unit
\n Chairs the System Pillar Core Group"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--REQUIREMENTS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "define the constraints that affect the whole or a significant proportion of the system and include: \n\n\* Physical Attributes:\n\n \* System Style\n\n \* System Size\n\n \* System Weight\n\n\* The 'RAMI' properties:\n\n \* System Reliability\n\n \* System Availability\n\n \* System Maintainability\n\n \* System Interoperability", -- "define the constraints that affect the whole or a significant proportion of the system and include:
\n\* Physical Attributes:
\n \* System Style
\n \* System Size
\n \* System Weight
\n\* The 'RAMI' properties:
\n \* System Reliability
\n \* System Availability
\n \* System Maintainability
\n \* System Interoperability"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM--UNDER--CONSIDERATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "System under Consideration\n\n [SOURCE: SPPRAMSS-4697 - [EN IEC 62443-3-2:2020]]", -- "System under Consideration
\n [SOURCE: SPPRAMSS-4697 - [EN IEC 62443-3-2:2020]]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "According to ISO 15288 a system is “a combination of interacting elements organized to achieve one or more stated purposes. “. In terms of this document, a system in black box view is furthermore defined by: \n\n\* interfaces to actors outside the system, defining the system boundary\n\n\* at least one function allocated to it\n\n\* at least one system capability that the system delivers as a service to the actors\n\nA system in white box view can be further refined into (exclusive or): \n\n\* into a more granular systems, hence making itself to a system of systems\n\n\* into subsystems on the lowest level of system of systems refinement\n\nIn both cases, a system is a conceptual entity that aggregates the properties of its constituents but is not the element that defines the properties itself. A system is hence subject to the emerging properties of its constituents.\n\nUsage context definitions of term „system“: \n\n\* Constituent system: according to ISO 21839, a system that forms part of a system of systems\n\n\* System of interest: according to ISO 21839, a system whose life cycle or properties are under consideration in a given context", -- "A composite of equipment, skills, and techniques capable of performing or supporting an operational role, or both. A complete system includes all equipment, related facilities, material, software, services and personnel required for its operation and support to the degree that it can be considered a self-sufficient unit in its intended operational environment."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:SYSTEM\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Subject of interest of the engineering activities described by ARCADIA, which is also an organized collection of elements working as a whole.", -- "According to ISO 15288 a system is “a combination of interacting elements organized to achieve one or more stated purposes. “. In terms of this document, a system in black box view is furthermore defined by:
\n\* interfaces to actors outside the system, defining the system boundary
\n\* at least one function allocated to it
\n\* at least one system capability that the system delivers as a service to the actors
\nA system in white box view can be further refined into (exclusive or):
\n\* into a more granular systems, hence making itself to a system of systems
\n\* into subsystems on the lowest level of system of systems refinement
\nIn both cases, a system is a conceptual entity that aggregates the properties of its constituents but is not the element that defines the properties itself. A system is hence subject to the emerging properties of its constituents. Example: The system “onboard CCS” does not define the properties of this system itself, the properties emerge from the combined properties of the subsystems “ETCS core”, “Onboard localization” and “Onboard map” (examples only).
\nUsage context definitions of term „system“:
\n\* Constituent system: according to ISO 21839, a system that forms part of a system of systems
\n\* System of interest: according to ISO 21839, a system whose life cycle or properties are under consideration in a given context"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TAILORING--OF--REQUIREMENT--BREAKDOWN\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "SoS engineering can go wrong (quite often) if done in an overengineered and abstract way. If every artefact is created on every System Level (e.g. 5-7 levels and types or requirements that are broken down), the workload is artificially multiplied without need, and this policy is not creating a really good work split.\n\nTo avoid this, every work process uses a tailoring approach which means \n\n\* “Copy” (reference) things from a higher level, if possible like they are\n\n\* Break up and translate through the levels that you really need, and not more.\n\n\* Be sure that the right requirements are broken down to System Level 5 specification and to support concept definition in projects and manage the system, its performance and standards management.\n\n\* Operational rulebooks include all that is needed.\n\n\* Support design phases in managing requirement allocation, interfaces managements, testing planning. Engineering rules are complete and fulfilling the requirements\n\n\* Support integration phase supporting data analysis, simulation process, anomaly resolution\n\nPrograms can fail (cost, duration, time to market) because of too long and intense workout on System Level 1-4 (overengineered analytical architecting) without getting to real implementation specification and questions.\n\nIf for example a high level requirement coming from the stakeholders can be addressed directly to System Level 5 without risk, this should be done. This is a (workflow) “tailoring” decision to be taken in the functional teams.\n\n Wrong approach: Breakdown every work item on every level. \n\n Right approaches: \n\n\* Specific workflow tailoring, and\n\n\* Generic workflow tailoring\n\n“Specific (workflow) tailoring” (intelligent work assignment per work item)\n\n = Single work items are only assigned on levels, where work is really needed\n\n (image: 1-image1.png) \n\nSecond example for specific workflow tailoring: Two different process break downs \n\n\* Op. process “Emergency stop of a train”, splits up “untailored” into work assignments…\n\n \* System level 1/2: Define generic roles of CCS and TMS in this case\n\n \* System Level 3 TMS: Define TMS process for it\n\n \* System Level 3 CCS: Define generic roles and basic information flow of Level 4 CCS Systems for it\n\n \* ….\n\n \* System Level 4/5 Traffic CS: ….\n\n \* System Level 4/5 Train CS: …\n\n \* …\n\n\* Operational process “Reset object controller” shall be tailored into these work assignments\n\n \* System Level 1/2: Skipped\n\n \* System Level 3: Delegate interface coordination to Traffic CS / Trackside Asset CS\n\n \* System Level 4/5 Traffic CS: Define process for the remote reset\n\n \* System Level 4/5 Traffic CS: Define process for the local OC reset\n\n \* System Level 4/5 Trackside Asset CS: Define process for the remote OC reset\n\n \* System Level 4/5 Trackside Asset CS: Define process for the local OC reset\n\nConsequence: With specific workflow tailoring, the analytical system levels are incomplete (see table above).\n\n \n\n “Generic (Workflow) Tailoring”\n\n = Certain work item types are worked out only on certain layers\n\nExample: \n\nExamples: | CBO | Requirements | Operational Processes | Logical Components\n\nSystem Level 1/2 | X | X | Business process | \n\nSystem Level 3/4 | | X | X | \n\nSystem Level 5 | | X | X | XCoordination of “tailoring” is the main role of all “functional teams” (see chapter later in the document).\n\nA good tailoring fulfils the following requirements \n\n\* Work is parallelized early and in a precise way (independent work)\n\n\* No “dummy” work items just for the sake of symmetric work item break downs in the system of systems\n\n\* The derivation process does not “block” everything because of sequential working dependencies\n\n\* The level of details of the specification is always only as good as needed on System Level 1-4 (analytical clarification = work preparation) so that the teams working on System Level 5 know what to do.\n\n\* A domain team on System Level 5 – the real specification level – can concentrate on its local work functions, engineering rules, and the collaboration with other domain teams concerning concrete interfaces\n\n\* A task level architecture team (ARC, OD, MIG) just focusses on the role to provide all needed specifications (especially requirements, process definitions, functional allocation) that enables the work on System Level 5 Team - without already creating too much design\n\n“Tailoring” is the work to dynamically assign work items to the system level that shall work on them. A tailoring process is executed by a functional team. The typical workflow for tailoring is \n\n\* An “inbox” (automated workflow, state driven) for new/changed work items is automated (e.g. inbox for new requirements, or for a proposal of process design change)\n\n\* Some work items can be assigned automatically by rules (generic tailoring)\n\n\* Else: The responsible person (role owner in the functional team) checks (evtl. discusses) the new work item\n\n\* The new work item is assigned to a system level and team.\n\nThis happens to all types of inputs and changes.\n\n Conclusions: \n\n\* Do only the minimal needed work on System Level 1-4, needed to get good Level 5 specifications, rulebooks, etc.\n\n\* Apply a generic tailoring to avoid that everybody is working on the same things\n\n\* Design a workflow that assigns work items dynamically to the right level.", -- "SoS engineering can go wrong (quite often) if done in an overengineered and abstract way. If every artefact is created on every System Level (e.g. 5-7 levels and types or requirements that are broken down), the workload is artificially multiplied without need, and this policy is not creating a really good work split.
\nTo avoid this, every work process uses a tailoring approach which means
\n\* “Copy” (reference) things from a higher level, if possible like they are
\n\* Break up and translate through the levels that you really need, and not more.
\n\* Be sure that the right requirements are broken down to System Level 5 specification and to support concept definition in projects and manage the system, its performance and standards management.
\n\* Operational rulebooks include all that is needed.
\n\* Support design phases in managing requirement allocation, interfaces managements, testing planning. Engineering rules are complete and fulfilling the requirements
\n\* Support integration phase supporting data analysis, simulation process, anomaly resolution
\nPrograms can fail (cost, duration, time to market) because of too long and intense workout on System Level 1-4 (overengineered analytical architecting) without getting to real implementation specification and questions.
\nIf for example a high level requirement coming from the stakeholders can be addressed directly to System Level 5 without risk, this should be done. This is a (workflow) “tailoring” decision to be taken in the functional teams.
\n Wrong approach: Breakdown every work item on every level.
\n Right approaches:
\n\* Specific workflow tailoring, and
\n\* Generic workflow tailoring
\n“Specific (workflow) tailoring” (intelligent work assignment per work item)
\n = Single work items are only assigned on levels, where work is really needed
\n (image: 1-image1.png)
\nSecond example for specific workflow tailoring: Two different process break downs
\n\* Op. process “Emergency stop of a train”, splits up “untailored” into work assignments…
\n \* System level 1/2: Define generic roles of CCS and TMS in this case
\n \* System Level 3 TMS: Define TMS process for it
\n \* System Level 3 CCS: Define generic roles and basic information flow of Level 4 CCS Systems for it
\n \* ….
\n \* System Level 4/5 Traffic CS: ….
\n \* System Level 4/5 Train CS: …
\n \* …
\n\* Operational process “Reset object controller” shall be tailored into these work assignments
\n \* System Level 1/2: Skipped
\n \* System Level 3: Delegate interface coordination to Traffic CS / Trackside Asset CS
\n \* System Level 4/5 Traffic CS: Define process for the remote reset
\n \* System Level 4/5 Traffic CS: Define process for the local OC reset
\n \* System Level 4/5 Trackside Asset CS: Define process for the remote OC reset
\n \* System Level 4/5 Trackside Asset CS: Define process for the local OC reset
\nConsequence: With specific workflow tailoring, the analytical system levels are incomplete (see table above).
\n
\n “Generic (Workflow) Tailoring”
\n = Certain work item types are worked out only on certain layers
\nExample:
\nExamples: | CBO | Requirements | Operational Processes | Logical Components
\nSystem Level 1/2 | X | X | Business process |
\nSystem Level 3/4 | | X | X |
\nSystem Level 5 | | X | X | XCoordination of “tailoring” is the main role of all “functional teams” (see chapter later in the document).
\nA good tailoring fulfils the following requirements
\n\* Work is parallelized early and in a precise way (independent work)
\n\* No “dummy” work items just for the sake of symmetric work item break downs in the system of systems
\n\* The derivation process does not “block” everything because of sequential working dependencies
\n\* The level of details of the specification is always only as good as needed on System Level 1-4 (analytical clarification = work preparation) so that the teams working on System Level 5 know what to do.
\n\* A domain team on System Level 5 – the real specification level – can concentrate on its local work functions, engineering rules, and the collaboration with other domain teams concerning concrete interfaces
\n\* A task level architecture team (ARC, OD, MIG) just focusses on the role to provide all needed specifications (especially requirements, process definitions, functional allocation) that enables the work on System Level 5 Team - without already creating too much design
\n“Tailoring” is the work to dynamically assign work items to the system level that shall work on them. A tailoring process is executed by a functional team. The typical workflow for tailoring is
\n\* An “inbox” (automated workflow, state driven) for new/changed work items is automated (e.g. inbox for new requirements, or for a proposal of process design change)
\n\* Some work items can be assigned automatically by rules (generic tailoring)
\n\* Else: The responsible person (role owner in the functional team) checks (evtl. discusses) the new work item
\n\* The new work item is assigned to a system level and team.
\nThis happens to all types of inputs and changes.
\n Conclusions:
\n\* Do only the minimal needed work on System Level 1-4, needed to get good Level 5 specifications, rulebooks, etc.
\n\* Apply a generic tailoring to avoid that everybody is working on the same things
\n\* Design a workflow that assigns work items dynamically to the right level."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TARGET--PICTURE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The following are considered minimum characteristics (baseline) for the targeted solution:\n\n \n\n\* Operational production processes directly related to the railway traffic commercial production are harmonised. This includes ETCS related processes, processes for securing and releasing railway lines/areas to/from maintenance and commissioning, operating through and recovering from degraded (non-regular) operations, reacting to and managing emergency situations (from operational perspective).\n\n\* Railway system operates ETCS L2, without signals.\n\n\* Railway system operates EULYNX type equipment.", -- "The following are considered minimum characteristics (baseline) for the targeted solution:
\n\* Operational processes directly related to the railway traffic commercial production are harmonised. This includes ETCS related processes, processes for securing and releasing railway lines/areas to/from maintenance and commissioning, operating through and recovering from degraded (non-regular) operations, reacting to and managing emergency situations (from operational perspective).
\n\* Railway system operates ETCS L2, without signals.
\n\* Railway system operates EULYNX type equipment."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TASK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A Task implements part of the functionality provided by a Functional Application. Depending on its role in the overall function provided by the Functional Application, it has a specific SIL assigned (in-line with total FA SIL definition). It may run replicated in multiple Compartments as Task Replicas.\n\n\n\nPrevious definition: A Functional Application Task implements part of the functionality provided by a Functional Application. Depending on its role in the overall function provided by the Functional Application, it has a specific SIL assigned (in-line with total FA SIL definition). It may run replicated in multiple Compartments as FA Task Replicas.", -- "A Task implements part of the functionality provided by a Functional Application. Depending on its role in the overall function provided by the Functional Application, it has a specific SIL assigned (in-line with total FA SIL definition). It may run replicated in multiple Compartments as Task Replicas.
\n
\nPrevious definition: A Functional Application Task implements part of the functionality provided by a Functional Application. Depending on its role in the overall function provided by the Functional Application, it has a specific SIL assigned (in-line with total FA SIL definition). It may run replicated in multiple Compartments as FA Task Replicas."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TECHNICAL--DELAY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "delay incurred in performing auxiliary technical actions associated with, but not part of, the maintenance action \n\nEXAMPLE Rendering the equipment safe (such as immobilising, cooling, isolation and grounding).\n\n[SOURCE: IEC 60050-192:2015,192-07-15]", -- "delay incurred in performing auxiliary technical actions associated with, but not part of, the maintenance action
\nEXAMPLE Rendering the equipment safe (such as immobilising, cooling, isolation and grounding).
\n[SOURCE: IEC 60050-192:2015,192-07-15]"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TECHNICAL--SPECIFICATIONS--FOR--INTEROPERABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Technical Specifications for Interoperability", -- "the specifications by which each subsystem or part of a subsystem is covered in order to meet the essential requirements and to ensure the interoperability of the trans-European high-speed and conventional rail systems as defined in Directives 96/48/EC and 2001/16/EC"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TEMPORARY--SHUNTING--AREA--TSHA--A--TEMPORARY--SHUNTING--AREA--IS--AN--INTERLOCKED--AREA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Temporary Shunting Area (TShA)\n\nA temporary shunting area is an interlocked area{comment:15} temporarily set up to allow shunting operations. A temporary shunting area is always under the responsibility of a Shunting area manager. (OR.DEF.161 - Banedanmark)", -- "Temporary Shunting Area (TShA)
\nA temporary shunting area is an interlocked area{comment:15} temporarily set up to allow shunting operations. A temporary shunting area is always under the responsibility of a Shunting area manager. (OR.DEF.161 - Banedanmark)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TERMINAL--OPERATOR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Terminal operator", -- "Means an organisational entity, which has been made responsible for the management of a marshalling yard, multimodal or intermodal terminal, port terminal"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TESTABILITY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A sub-system that is designed for testability will be ready to show that it fulfils the requirements needed by the overall system. Testability is not an attribute of the sub-system/module itself but has to be designed into architecture and interfaces.{comment:1299}", -- "A sub-system that is not designed for testability will not be ready to show that it fulfils the requirements needed by the overall system. Testability is not an attribute of the sub-system/module itself but has to be designed into architecture and interfaces.{comment:1299}"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:THE--\_TRACE\_--FOR--A--WORK--ITEM--CHAIN\_TREE\_GRAPH\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* A Trace is a chain of all linked work items (a “directed graph” of nodes and links), that resolve all dependencies of a single work item\n\n\* Example trace (in this case a “simple tree of nodes”, but can also be more complex):\n\n \* A common business objective is solved by\n\n \* a list of operational capabilities and requirements which are implemented in\n\n \* a list of operational processes which need\n\n \* a list of system capabilities and functions which are allocated in\n\n \* logical components that are implemented in\n\n \* physical subsystems which have\n\n \* a list of precisely defined interfaces and\n\n \* engineering rules..\n\n\* A trace is valid if all derivations are complete and correct.\n\n\* A trace is complete if all dependencies are resolved by specified and verified work items (down to the implementation of detailed operational rulebooks and system handbooks, engineering rules and FFFiS interface specifications)\n\n\* The overall specification is complete when all objectives, operational capabilities, and operational requirements are resolved by complete traces.\n\n\* Example of the trace of one requirement (red node) down to functions, processes and components (other colours)\n\n\n\n \n\n (image: 1-Grafik\_1780564629.png)", -- "\* A Trace is a chain of all linked work items (a “directed graph” of nodes and links), that resolve all dependencies of a single work item
\n\* Example trace (in this case a “simple tree of nodes”, but can also be more complex):
\n \* A common business objective is solved by
\n \* a list of operational capabilities and requirements which are implemented in
\n \* a list of operational processes which need
\n \* a list of system capabilities and functions which are allocated in
\n \* logical components that are implemented in
\n \* physical subsystems which have
\n \* a list of precisely defined interfaces and
\n \* engineering rules..
\n\* A trace is valid if all derivations are complete and correct.
\n\* A trace is complete if all dependencies are resolved by specified and verified work items (down to the implementation of detailed operational rulebooks and system handbooks, engineering rules and FFFiS interface specifications)
\n\* The overall specification is complete when all objectives, operational capabilities, and operational requirements are resolved by complete traces.
\n\* Example of the trace of one requirement (red node) down to functions, processes and components (other colours)
\n
\n
\n (image: 1-Grafik\_1780564629.png)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TLS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Transport Layer Security\n\n (source: SPPRAMSS-1705 - [UNISIG Subset-146] )", -- "Transport Layer Security
\n (source: SPPRAMSS-1705 - [UNISIG Subset-146] )"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TOUCH--CONTROLLER--CONTROLLER--WHICH--MANAGES--THE--STATES--AND--FAILURES--OF--A--TOUCH--PAN\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Touch Controller\n\n Controller which manages the states and failures of a Touch Panel.", -- "Touch Controller
\n Controller which manages the states and failures of a Touch Panel."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRACK--FOOTPRINT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The track Footprint of an object is defined for a specific track. It is the perpendicular projection of this object's ground footprint on the track center line.\n\nNotes: The definition corresponds to UNISIG's occupancy, without consideration fix-block / moving block. This definition is weak for intersections of two vehicles near points, where the width of vehicles has to be considered (e.g. with a fouling point indicator near the track) and for level crossings, because the road users are not associated with the rail track.", -- "The track Footprint of an object is defined for a specific track. It is the perpendicular projection of this object's ground footprint on the track center line.
\nNotes: The definition corresponds to UNISIG's occupancy, without consideration fix-block / moving block. This definition is weak for intersections of two vehicles near points, where the width of vehicles has to be considered (e.g. with a fouling point indicator near the track) and for level crossings, because the road users are not associated with the rail track."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRADE-SPACE--FACTOR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ "trade-space factors" represent the different factors/characteristics defining the solution space/alternatives.\n\nFrom this trade-off playspace containing set of good/acceptable solutions, we will need to identify the optimal one (i.e. "best" trade-off). """, -- """ "trade-space factors" represent the different factors/characteristics defining the solution space/alternatives.
\nFrom this trade-off playspace containing set of good/acceptable solutions, we will need to identify the optimal one (i.e. "best" trade-off). """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_2 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Traffic Management System (double, needs to be deleted)", -- "Traffic Management System"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_3 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Traffic Management System is used to manage the operation of the railway system and to ensure efficient recovery when unexpected traffic disruptions occur.", -- "Traffic Management System (double, needs to be deleted)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRAFFIC--MANAGEMENT--SYSTEM\_lexConcept\_4 modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Traffic Management System", -- "Traffic Management System is used to manage the operation of the railway system and to ensure efficient recovery when unexpected traffic disruptions occur."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRAIN--DISPLAY--SYSTEM--CONTROLLER--THE--TDS--CONTROLLER--INTERACTS--WITH--SYSTEM--CCS--T\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Train Display System Controller\n\n The TDS Controller interacts with system (CCS, TCMS,CVR) and manages the Desk Display Area.", -- "Train Display System Controller
\n The TDS Controller interacts with system (CCS, TCMS,CVR) and manages the Desk Display Area."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRAIN--DISPLAY--SYSTEM--TDS--THE--TRAIN--DISPLAY--SYSTEM--IS--THE--TRAIN--CAB--DISPLAY--SYS\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Train Display System (TDS)\n\n The Train Display System is the train cab display system that comprises and manages one or more displays on the driver desk and a driver interface. It is composed of at least one display with the associated input devices, at least one loudspeaker and at least one Train Display System Controller. It offers a standardised communication interface to systems that need driver interaction.", -- "Train Display System (TDS)
\n The Train Display System is the train cab display system that comprises and manages one or more displays on the driver desk and a driver interface. It is composed of at least one display with the associated input devices, at least one loudspeaker and at least one Train Display System Controller. It offers a standardised communication interface to systems that need driver interaction."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRAIN--RUNNING--NUMBER\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A number under which the train is operated.\n\nReference: Glossary of Terms and Abbreviation. SUBSET-023. Issue 4.0.0", -- "A number under which the train is operated."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:TRAIN-CENTRIC--TRACK--OCCUPANCY\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ With train-centric approach the trackside focus is on representing a railway vehicle with an extent in a topology rather than on representing anonymous occupancy states of fixed sizes reported by TTD systems as in today's conventional block-centric signaling systems. In other words, the term "train-centric" refers to a "train-oriented" view of the trackside system about the track occupation caused by a railway vehicle, e.g., an ETCS-equipped train. This view is achieved by fusion of localisation information from both train and trackside.\n\n\n\n A train-centric track occupancy determination is based primarily on localisation information received from the railway vehicle, e.g., from trains sent via ETCS Train Position Reports. The trackside system will also take into account additional trackside localisation information if available such as Trackside Train Detection (TTD) inputs, for example to:\n\n\* Adjust the trackside view of track occupancy by train, based on clear TTD sections at the front or rear of the train\n\n\* Detect movement of non-communicating railway vehicles, e.g., trains/wagons not equipped with ETCS and trains equipped with ETCS that have lost communication\n\n\* Handle degraded situations, such as loss of train integrity. """, -- """ With train-centric approach the trackside focus is on representing a railway vehicle with an extent in a topology rather than on representing anonymous occupancy states of fixed sizes reported by TTD systems as in today's conventional block-centric signaling systems. In other words, the term "train-centric" refers to a "train-oriented" view of the trackside system about the track occupation caused by a railway vehicle, e.g., an ETCS-equipped train. This view is achieved by fusion of localisation information from both train and trackside.
\n
\n A train-centric track occupancy determination is based primarily on localisation information received from the railway vehicle, e.g., from trains sent via ETCS Train Position Reports. The trackside system will also take into account additional trackside localisation information if available such as Trackside Train Detection (TTD) inputs, for example to:
\n\* Adjust the trackside view of track occupancy by train, based on clear TTD sections at the front or rear of the train
\n\* Detect movement of non-communicating railway vehicles, e.g., trains/wagons not equipped with ETCS and trains equipped with ETCS that have lost communication
\n\* Handle degraded situations, such as loss of train integrity. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:UPLINKING\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ """ To handle deviated new designs or new/changed external inputs the whole “engineering” has to be understood as \n\n\* Work items with type, versions, and state\n\n\* Their links with versions, link roles and state\n\nThe engineering database is in the end a “directed graph” with “nodes” (work items) and links (graph just indicated in the picture):{comment:13}\n\n (image: 3-image3.png) \n\nThe basic principle for continuous integration using an ALM+MBSE system is based on the mathematical process of “adding a directed graph to another directed graph which can overlap in certain nodes”. This is called “Uplinking” in the System Pillar.\n\n Existing graph (e.g. ALM master database) New graph fragment (external contribution)\n\n (image: 1-screenshot-20221229-210015.png) \n\n \n\n“Merging these graphs” ="uplinking" (of conceptual, requirement and modelling work items) is the most feared job to do in system engineering when done manually. A strong system support is necessary. This merge can happen when \n\n\* A daughter-system graph is “uplinked” to the mother-system (master) graph\n\n\* An external contribution is integrated (perhaps again and again)\n\n\* An external editor was used to edit elements in the mater database (e.g. ALM= master database, MBSE-Tool = editor for a part of the work items)\n\n\* A bottom-up process is faster (domain team) then the top-down process (Level 3)\n\n\* The architecture teams is faster concerning functional design then the operational design team with the process design. Or both are fast then the requirement feedback from the migration team is coming.\n\n\* Etc.\n\nA lot of isolated (time, team, engineering tool) asynchronous designs will occur in the System Pillar. They lead to these synchronization needs:\n\n \n\n (image: 2-screenshot-20221229-210015.png) \n\n \n\n \n\nThis does not mean, that “synchronization” is the standard choice to integrate work. The preferred choice is top-down design and working in the same system whenever possible. But synchronization will anyway be needed very often.\n\nThe sync process of these integration steps is the same. All integration work (conceptual level, system models, requirements, etc.) is about this merging process. The following things can happen: \n\n\* A new node (work item) is added and linked to 0-n{comment:14} old nodes\n\n\* An old node is changed or deleted or relinked in another way\n\nThe indirect effect of such a change/add process can be \n\n\* In a “trace” (chain of work items) links can get{comment:15} “suspect” if earlier links or nodes were changed (through partially-automated impact analysis)\n\n\* New workflows are triggered by new work item states. If a new node is created with the state “draft”, it is because of this assigned by a tailoring process in a certain way.\n\nTo add the new fragment{comment:16} to the exiting master database (can only be done efficiently with automated ALM systems) the following work steps are executed \n\n\* Convert contribution to graph structure (work items/links), check consistency\n\n\* Analyse and assess new contribution\n\n\* Perhaps adapt/change contribution before synchronisation\n\n\* Create difference to master database automatically\n\n\* Assess difference and indirect impacts\n\n\* Replace/link fragment in database (fully or partially) or revoke it\n\n\* Check and analyse the new state of the master database\n\nSimplification of synchronization \n\n\* Assigned designated areas to be designed only in certain teams/tools/places (only connecting links to be synchronized)\n\n\* Check separated designs together frequently to avoid large deviations\n\nHow often synchronize/integrate? \n\n\* Best: Directly work on the master model (possible with ALM, performance problems with MBSE tools)\n\n\* Second best: Do the sync/integration very frequently (daily, weekly, or monthly)\n\n\* Worst: do it once in 6 months --> Risk of unsolvable incompatibility and lost work is increased\n\nConclusion: \n\n\* We need a very efficient and sophisticated tool support for the synchronization/integration process\n\n\* The integration/synchronization process will create large efforts in the Modelling Service Team\n\nThe concrete rules, when and how “uplinking” is done, are defined in chapter 20. """, -- """ To handle deviated new designs or new/changed external inputs the whole “engineering” has to be understood as
\n\* Work items with type, versions, and state
\n\* Their links with versions, link roles and state
\nThe engineering database is in the end a “directed graph” with “nodes” (work items) and links (graph just indicated in the picture):{comment:13}
\n (image: 3-image3.png)
\nThe basic principle for continuous integration using an ALM+MBSE system is based on the mathematical process of “adding a directed graph to another directed graph which can overlap in certain nodes”. This is called “Uplinking” in the System Pillar.
\n Existing graph (e.g. ALM master database) New graph fragment (external contribution)
\n (image: 1-screenshot-20221229-210015.png)
\n
\n“Merging these graphs” ="uplinking" (of conceptual, requirement and modelling work items) is the most feared job to do in system engineering when done manually. A strong system support is necessary. This merge can happen when
\n\* A daughter-system graph is “uplinked” to the mother-system (master) graph
\n\* An external contribution is integrated (perhaps again and again)
\n\* An external editor was used to edit elements in the mater database (e.g. ALM= master database, MBSE-Tool = editor for a part of the work items)
\n\* A bottom-up process is faster (domain team) then the top-down process (Level 3)
\n\* The architecture teams is faster concerning functional design then the operational design team with the process design. Or both are fast then the requirement feedback from the migration team is coming.
\n\* Etc.
\nA lot of isolated (time, team, engineering tool) asynchronous designs will occur in the System Pillar. They lead to these synchronization needs:
\n
\n (image: 2-screenshot-20221229-210015.png)
\n
\n
\nThis does not mean, that “synchronization” is the standard choice to integrate work. The preferred choice is top-down design and working in the same system whenever possible. But synchronization will anyway be needed very often.
\nThe sync process of these integration steps is the same. All integration work (conceptual level, system models, requirements, etc.) is about this merging process. The following things can happen:
\n\* A new node (work item) is added and linked to 0-n{comment:14} old nodes
\n\* An old node is changed or deleted or relinked in another way
\nThe indirect effect of such a change/add process can be
\n\* In a “trace” (chain of work items) links can get{comment:15} “suspect” if earlier links or nodes were changed (through partially-automated impact analysis)
\n\* New workflows are triggered by new work item states. If a new node is created with the state “draft”, it is because of this assigned by a tailoring process in a certain way.
\nTo add the new fragment{comment:16} to the exiting master database (can only be done efficiently with automated ALM systems) the following work steps are executed
\n\* Convert contribution to graph structure (work items/links), check consistency
\n\* Analyse and assess new contribution
\n\* Perhaps adapt/change contribution before synchronisation
\n\* Create difference to master database automatically
\n\* Assess difference and indirect impacts
\n\* Replace/link fragment in database (fully or partially) or revoke it
\n\* Check and analyse the new state of the master database
\nSimplification of synchronization
\n\* Assigned designated areas to be designed only in certain teams/tools/places (only connecting links to be synchronized)
\n\* Check separated designs together frequently to avoid large deviations
\nHow often synchronize/integrate?
\n\* Best: Directly work on the master model (possible with ALM, performance problems with MBSE tools)
\n\* Second best: Do the sync/integration very frequently (daily, weekly, or monthly)
\n\* Worst: do it once in 6 months --> Risk of unsolvable incompatibility and lost work is increased
\nConclusion:
\n\* We need a very efficient and sophisticated tool support for the synchronization/integration process
\n\* The integration/synchronization process will create large efforts in the Modelling Service Team
\nThe concrete rules, when and how “uplinking” is done, are defined in chapter 20. """

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:VIEW--AGGREGATION--OF--AREAS--REQUIRED--FOR--SYSTEMS--CCS--TCMS--CVR------A--VIEW--CAN--R\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "View\n\n Aggregation of Areas required for systems (CCS, TCMS, CVR...). A View can represent Areas of different systems at the same time.", -- "View
\n Aggregation of Areas required for systems (CCS, TCMS, CVR...). A View can represent Areas of different systems at the same time."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:VIEW--CONTROLLER--THE--VIEW--CONTROLLER--AGGREGATES--THE--VIEW--THE--OUTPUT--DEVICES--AND\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "View Controller\n\n The View Controller aggregates the View, the output devices and the controller of each input device.", -- "View Controller
\n The View Controller aggregates the View, the output devices and the controller of each input device."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:VIRTUAL--COMPUTING--ELEMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Virtual Computing Element refers to virtually provided compute resources with computing resource guarantees.", -- "The Virtualisation Environment contains all software needed to to provide (multiple) Virtual Computing Elements on a single Physical Computing Element."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:VIRTUALISATION--ENVIRONMENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "The Virtualisation Environment contains all software needed to provide (multiple) Virtual Computing Elements on a single Physical Computing Element.", -- "The Virtualisation Environment contains all software needed to to provide (multiple) Virtual Computing Elements on a single Physical Computing Element."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WIRELESS--COMMUNICATION\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "Wireless Communication refers to the requirements for Wireless Communication from IEC 62443-3-3 mentioned in SR 1.6, SR 1.6 RE1 and SR 2.2, SR 2.2 RE1.\n\nSecure Components are only seen as connected to Wireless Communication, if the Secure Component itself has Wireless Communication abilities implemented. This may count for Work Force Warning systems, for example. This explicitly does exclude Secure Components like Field element controllers, Euro radio, Interlockings and many more according to today's definitions.", -- "Wireless Communication refers to the requirements for Wireless Communication from IEC 62443-3-3 mentioned in SR 1.6, SR 1.6 RE1 and SR 2.2, SR 2.2 RE1.
\nSecure Components are only seen as connected to Wireless Communication, if the Secure Component itself has Wireless Communication abilities implemented. This may count for Work Force Warning systems, for example. This explicitly does exclude Secure Components like Field element controllers, Euro radio, Interlockings and many more according to today's definitions."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WIRELESS--COMPONENT\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A Secure Component or Network Component with a wireless communication interface.\n\n Examples of Wireless Components are handheld devices, WLAN access points, WLAN/5G/FRMCS/... routers, modems and wireless object controllers,....", -- "A Secure Component or Network Component with a wireless communication interface.
\n Examples of Wireless Components are handheld devices, WLAN access points,WLAN/5G/FRMCS/... routers, modems and wireless object controllers,...."

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WORK--ITEM--EDITOR\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* The basic system and workflow management tool is the ALM system (currently Polarion).\n\n\* The ALM offers different frontend types to create/edit/change work items (document editors, database frontends, graphical design, etc.)\n\n\* Additional editors (like graphical modelling tools for ARCADIA and SysML) can be used to edit elements of the engineering database in the ALM System (synchronized data) as far as a synchronisation software is available (see chapter data management)", -- "\* The basic system and workflow management tool is the ALM system (currently Polarion).
\n\* The ALM offers different frontend types to create/edit/change work items (document editors, database frontends, graphical design, etc.)
\n\* Additional editors (like graphical modelling tools for ARCADIA and SysML) can be used to edit elements of the engineering database in the ALM System (synchronized data) as far as a synchronisation software is available (see chapter data management)"

### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WORK--ITEM\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Work items examples: “A requirement”, or “a function”, or “a concept aspect”\n\n\* Work items are objects in the “engineering database” (ALM) that represent the result of a design step.\n\n\* The structure of the work items is defined by the SEMP process definition documents (overview in the maps), that also make use of modelling standards like ARCADIA or SysML\n\n\* The master-engineering database is the ALM System (currently Polarion) which contains all work items and their links.", -- "\* ork items examples: “A requirement”, or “a function”, or “a concept aspect”
\n\* Work items are objects in the “engineering database” (ALM) that represent the result of a design step.
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### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WORKFLOW--AND--WORKFLOW--RULES\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* A workflow describes the rules (processes) how a “trace” shall be created step by step.\n\n\* A workflow includes a set of rules that define, how\n\n \* work items must be broken down and linked (link rules)\n\n \* work item types must be resolved\n\n \* certain work item types are assigned to certain teams in the organisation\n\n\* Every work item, that is not compliant to a workflow is marked as invalid\n\n\* There are optional workflow steps in a workflow. E.g. a requirement can be directly resolved by multiple functions (that are always explained with a rational attribute) without having a “solution concept” work item, which is optional.", -- "\* A workflow describes the rules (processes) how a “trace” shall be created step by step.
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### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WORKFLOW--PRIORITISATION--STRATEGY--TO--BE--DECIDED--PER--AREA\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "In general, there are two directions for prioritisation, which are “horizontal” or “vertical” \n\n\* Horizontal prioritisation means for example “which of all operational capabilities do we break down first down to their operational processes (just the next derivation step per capability)”\n\n\* Vertical prioritisation means for example “which operational capability do we resolve down to the physical architecture before we start to resolve the next\n\n\* capability”\n\n(image: 1-Grafik\_1.png) \n\n\* Both prioritisation methods are mixed to reach two targets in parallel: a) Use the capacity of all teams in parallel with different roles (vertical prioritisation), b) get a more and more full picture top-down (horizontal prioritisation).\n\n\* A “mix” can for example be: “At first only all operational capabilities for standard train movements (no shunting etc.) and only the processes related to ETCS Level R without ATO are traced down to the physical architecture in the first step”.\n\nFor the prioritisation these aspects are important: \n\n\* As much as possible early usable results shall be created (year by year).\n\n \* Example 1 (“bottom-up”): All traces, that lead to the EULYNX interfaces shall be resolved and approved fast. EULYNX interfaces should be standardized soon.\n\n \* This means to import and resolve all traces, and to connect all interfaces to the overall architecture “upwards” (connecting workflow)\n\n \* Example 2 (“top-down”): All traces for DAC shall be resolved fast, but there are not so much complete (resolved) traces to import in terms of processes and architecture. All operational capabilities and operational requirements for DAC need to be created and broken down and resolved down to the implementation (=vertical prioritisation).\n\n\* Important decisions shall be decided early as a basis for all work\n\n \* Example 3: (“horizontal prioritisation”): The process standardisation scope and depth shall be decided as early as possible. This means to create all operational capabilities, derive them town to operational processes, and assess every process impact on the later grade of standardisation of products.\n\n \* Example 4 (“horizontal + vertical prioritisation”): The functional allocation and ambition in the logical architecture shall be decided as early as possible. For this, all operational capabilities need to be derived down to the logical architecture, and every logical component needs to be designed concerning the external dependencies that it has for other logical components (e.g. delegation of safety requirements from one to other components get only visible with the deep dive in the functional design).", -- "In general, there are two directions for prioritisation, which are “horizontal” or “vertical”
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### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WORKFLOW--STEP--ON--STEP--IN--A--WORKITEM--TRACE\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "A workflow step includes some of the following actions \n\n\* “Create a trace”: The work item on the “top/start” of a trace is created based on external decisions. These are typically\n\n \* Steering group decisions about system capabilities, common business objectives, improvement targets or problem descriptions, operational requirements, new safety requirements, etc. (see chapter below).\n\n \* Technical regulations\n\n\* “Derive” a work item: A team that is responsible for a derivation step in a trace for work items of a specific type looks for all unresolved work items and derives the resolving work items that are part of the own team scope. E.g., an ARC team sees unresolved actions in an operational process an derives all needed system requirements and functions that need to be worked out.\n\n\* “Propose” a work item: A team or person receives (assignment) a work item with the status “proposed” from another team, that wants to resolve a dependency. E.g., an OD team designed an action in an operational process and “proposes” (“push”) a system requirement to an ARC team.\n\n\* “Design / engineer / work out” a work item: The content of the work item is worked out. (e.g. an operational process with all actions)\n\n\* “Break down” (“dependencies defined/delegated”) a work item: All necessary next work items are derived (as proposals) and linked.\n\n\* “Resolve” a work item: All necessary next/downwards work items are derived, linked, designed, approved and resolved. E.g., all system functions to fulfil (resolve) an operational requirement are completed.\n\n\* “Assign” a work item: The work item is assigned to a team or person that shall design it.\n\n\* “Uplink” a work item. A “free floating” (not linked top-down, completely unlinked, or currently invalid) work item (e.g. coming from a bottom-up process or external contributor) is linked “upwards” to a “traced/valid” work item as if it had been derived from it before (e.g. a process is linked ex post to a capability). This is only done if this new link is really needed to resolve the traced work item in a correct way. Afterwards, the following “change action” is executed.\n\n\* “Change a work item or link in an existing trace”: Because of a change of a work item or link in a trace the trace gets invalid in some parts(has “suspect links”). It must be reassured that the derivation process in all directions of the trace is correct, or otherwise further work items need to be adapted until all work items are resolved again. E.g., a system requirement lead to 5 system functions that are needed. One system function cannot be implemented. Therefore, all 5 derivations need to be reworked and perhaps all functions need to be deleted and the resolving process starts again. Other example for a suspect link: A function was derived from a requirement. Later the requirement is changed, and the link gets automatically suspect because it is not clear if the function is still implementing the requirement.\n\n\* “Approve” a work item (see chapter below). An approval step is done in the ALM on work item level by experts based on their knowledge. The group of approvers is assigned depending on the work item type and content. A single approver agrees with an approval that a work item is correctly derived, designed, and broken. Approvals are done per single work items like requirements, concept paragraphs or operational requirements. Approval sessions are typically done for a selected set of work items.\n\n\* “Decide a deliverable”. When all work items for a certain work area / release are resolved and approved, a document is generated for a formal decision process (e.g. an interface specification or a rulebook).\n\n\* The typical sequence of actions in a work step is\n\n \* Pull a work item or check proposed work items\n\n \* Design the work item\n\n \* Resolve the work item\n\n \* Assign resolving work items to a team or person", -- "A workflow step includes some of the following actions
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### ontorail:ontolex:LexicalConcept lex\_sp-defs-240619:WORKSTEP--\_WORKITEM--CHECK\_lexConcept modifications from lex\_sp-defs-240306:

 == skos:definition => ++ "\* Is the workitem content correct and without inner contradictions?\n\n\* Does the workitem content fit to the wokitem type?\n\n\* Are all standard or custom workitem fields filled?\n\n\* Does the workitem content implement the demands coming to it by existing links?\n\n\* Do all mandatory links exist and are they completely fulfilling their role? Does the content fit to them? E.g. a system requirements can be implemented by a function... but it needs to be completely implemented and not partly.", -- "\* Is the workitem content correct and without inner contradictions?
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