GLOSSARY

A

AAM	Application Activity Model
Abstract Test Method	The description of how an implementation is to be tested, given at the appropriate level of abstraction to make the description independent of any particular implementation of testing tools or procedures, but with sufficient detail to enable these tools and procedures to be produced.
Abstract Test Suite	Set of abstract test cases necessary for conformance testing of an implementation of an application protocol.
Active Work Performer	synonym, see: Worklist Handler
Activity	Description of a piece of work that forms one logical step within a process. An activity may be a manual activity, which does not support computer application, or a workflow (automated) activity. A workflow activity requires human and/or machine resource(s) to support process execution; where human resource is required an activity is allocated to a workflow participant.
Activity Block	synonym, see: Iteration
Activity Group	synonym, see: Process Role
Activity Instance	The representation of an activity within a (single) enactment of a process, i.e. within a process instance.
Activity Network	synonym, see: Process
Activity Set	synonym, see: Activity Block

Activity State	A representation of the internal conditions defining the status of an activity instance at a particular point in time. Most workflow management systems maintain such status information as a part of their workflow control data.
Actor	synonym, see: Workflow Participant
Additional skills and knowledge	Recommended skills and knowledge, which support and extend professional skills or are related to additional qualification.
Administrator	A workflow system user who has special privileges allowing various system set-up, control and management functions to be performed. In some systems these tasks may be shared between several administrators, each is taking responsibility for separate areas of administration.
Advisory System	An expert system that emphasises the use of advice rather than that of commands.
Agent	synonym, see: Workflow Participant
AI	Artificial Intelligence
AIM	Application Interpreted Model
Alfamicro	Alfamicro Lda (Portugal) - was founded in 1983, with the objective to do consultancy and engineering services to support advanced re-engineering and integrated IT solutions for SMEs.
AP	Application Protocol
Application Activity Model	A model that that describes an application in terms of its processes and information flows.
Application Case Data	synonym, see: Application Data
Application Context	Environment in which the integrated resources are interpreted to support the use of product data in a specific application.
Application Data	Data that is application specific and not accessible by the workflow management system.
Application Interface	Interface from an external application that provides access to the functional capabilities and data base

	of the PDM system. The interface is usually built from a library of calling routine that may be embedded within other applications or programs to call PDM functions to access or update the PDM database.
Application Interpreted Model	An information model that uses the integrated resources necessary to satisfy the information requirements and constraints of an application reference model, within an application protocol.
Application Object	Atomic element of an application reference model that defines a unique concept of the application and contains attributes specifying the data elements of the object.
Application Protocol	Specifies an application interpreted model satisfying the scope and information requirement for a specific application.
Application Reference Model	Information model that describes the information requirements and constraints of a specific application context.
Application Resource	Integrated resource whose contents are related to a group of application contexts.
Approval	Process by which one or more authorities indicate their approval of a control data object. Approval may denote a change in the life cycle state of the object such as its release for manufacture, construction, or a confirmation that it is an accurate record.
ARM	Application Reference Model
Artificial Intelligence (i)	An interdisciplinary field usually regarded as a branch of computer science, dealing with models and systems for the execution of functions generally associated with human intelligence, such as reasoning and learning.
Artificial Intelligence (ii)	The capability of a functional unit to perform functions that are generally associated with human intelligence such as reasoning, learning, and self-improvement.
Assembly	Product that is decomposable into a set of components or other assemblies from the

perspective of a specific application.

Attribute | A piece of information stating the property of an entity (e.g. a document or a part).

Audit Data | A historical record of the progress of a process instance from start to completion or termination. Such data normally incorporates information on the state transition of the process.

Authorisation | The level of functionality an access to PDM-managed information granted a specific user. Examples of access authorisation include the ability to add users, review or release items, or launch an application.

Automated Activity | An activity that is capable of computer automation using workflow management system to manage the activity during execution of the business process of which it forms a part.

Automatic Cycle | Cycle of operations which, once started, repeats indefinitely until stopped.

Automatic Learning | see: Machine Learning

B

B2B | Business to Business

Baseline | see: Performance Baseline

Benchmarking | Improvement process in which a company measures the performance of its products or processes against that of best-in-class products or companies.

Bill of Material | An ordered list of the parts, sub-assemblies and assemblies and raw materials that define the product.

Black-Box Test | A test within the tester only knows what the Sysware is supposed to do.

BME | Budapest University of Technology and Economics. Established in 1782, with eight faculties is the largest technical higher education institution of Hungary.

BMP	Best Manufacturing Practice
BOM	Bill of Material
BPR	Business Process Reengineering
Build Time	synonym, see: Process Definition Mode
Bundled PDM Systems	PDM systems available only as an integral part of another software application (e.g. some PDM systems are only available as an option to a CAD/CAM system).
Business Process	A set of one or more linked procedures or activities which collectively realise a business objective or policy goal, normally within the context of an organisational structure defining functional roles and relationships.
Business Process Modelling	synonym, see: Process Definition Mode
Business Process Reengineering	The process of (re-)assessment, analysis, modelling, definition and subsequent operational implementation of the core business processes of an organisation, or other business entity.
Business Process Rule	synonym, see: Transition Condition

C

CAA (i)	Computer Aided Automation
CAA (ii)	Computer Aided Assembly
CAA (iii)	Computer Aided Analysis
CAD	Computer Aided Design
CAE	Computer Aided Engineering
CAI	Computer Aided Industry
CAM	Computer Aided Manufacturing
CAP	Computer Aided Planning
Capability	The quality of being able or endued for executing an

	activity, e.g. group of characteristics that describes functional aspects of manufacturing resources.
Capacity	The capability of a system (or sub-system) or resource to perform its expected function, in particular in term of amount of production.
CAPC	Computer Aided Production Control
CAPM	Computer Aided Production Management
CAPP	Computer Aided Process Planning
CAR	Computer Aided Research
CAQ(A)	Computer Aided Quality Assurance
Case	synonym, see: Process Instance
Case Data	synonym, see: Workflow Relevant Data
Case History	synonym, see: Audit Data
Case Processor	synonym, see: Workflow Engine
Case Type	synonym, see: Process Definition
CAT	Computer Aided Testing
CE	Concurrent Engineering
CFI	CAD Framework Initiative
Change Control	The process and procedures that manage how changes are incorporated into a product.
Change	A modification to a component, configuration, or document from currently defined and approved status. Changes cause version or revision levels of effected items to be updated.
CIM	Computer Integrated Manufacturing
Classification	Classification is the assignment of attributes and other defining meta-data to managed objects and information within a PDM system. These meta-data are then used for finding data with similar characteristics.

Client Application (i)	An application which interacts with a workflow engine, requesting facilities and services from the engine.
Client Application (ii)	synonym, see: Workflow Application
Client Program	synonym, see: Client Application
CM	Configuration Management
CMIP	Common Management Information Protocol
CNC	Computer Numerical Control
Cognitive Modelling	The modelling of human perception, action, memory, and reasoning in terms of information processing.
Common Management Information Protocol	International standard for transferring management information (ISO/IEC 9596:1991).
Competence	Legal or practical ability to perform. Possession of a satisfactory level of relevant knowledge and acquisition of a range of relevant skills that include interpersonal and technical components. Competence=Knowledge+Skills
Competence chart	A document describing the job-centred or person-centred required knowledge, skills and personal identity (competence).
Competence Template	A digital form in which the knowledge, skills and competence required for a certain type of job or profession, or achieved in a certain educational activity, can be entered, using the pre-defined terminology of the taxonomy.
Competencies	The various skills students are to be taught and teachers are to be prepared to teach.
Competency	A set of knowledge, skills, experience, abilities, attitudes and rules of behaviour, which has been described in the professional standard and the compliance of which is evaluated. Competence refers to an individual's knowledge, skills, abilities, or personality characteristics that directly influence his or her job performance.
Compiled Knowledge	Declarative knowledge that has been translated into

	procedural knowledge so that it can be immediately processed by a computer.
Completion Time	synonym, see: Deadline
Component	A product that is not subject to decomposition from the perspective of a specific application.
Computer Aided Design	The design activities, including drafting and illustrating, in which information processing systems are used to carry out functions such as designing or improving a part or a product. (Note: Computer aided design programs may provide precise dimensioning and positioning of each graphic element for engineering and manufacturing purposes.)
Computer Aided Engineering	Engineering activities in which information processing systems are used to carry out essential functions such as optimising manufacturability, performance, productivity or economy. (Note: Information from CAD/CAM design database is used to analyse the functional characteristics of a part or a product under design, or to simulate its performance under various conditions.)
Computer Aided Manufacturing	Manufacturing in which the production process is directed and controlled by information processing systems.
Computer Aided Planning	The planning of all production activities with the use of information processing systems such as planning and decision-help software. (Note: The production activities pertain to volume, kind, timing, method, place, facility and personnel.)
Computer Aided Process Planning	All planning activities in which information processing systems are used for preparation of the basic data about production processes such as machining.
Computer Aided Production Control	see: Computer Aided Production Management
Computer Aided Production Management	Production management activities in which information processing systems are used from material requirements planning to production control.
Computer Aided Quality	Quality assurance ensured by computerised

Assurance	planning, monitoring and control of processes, parts and products throughout all phases of the product life cycle. (Note: Computer aided quality insurance includes a quality report system from design to field performance and from shop floor to management.)
Computer Aided Testing	Testing and checking of a product or a part thereof, by means of information processing systems. (Note: Computer aided test is one aspect of computer aided quality assurance.)
Computer Integrated Manufacturing	Manufacturing in which all activities are integrated into a computer-based planning, management, and control system. (Note: CIM includes the technologies of computer aided design, computer aided planning, computer aided manufacturing and computer aided quality assurance and the share of information among them.)
Computerisation	Automation by means of computers.
Concurrent Engineering (i)	A management/operational approach which improves product design, production, operation, and maintenance by developing environments in which personnel from all disciplines (design, marketing, production engineering, process planning, and support) work together and share data throughout all phases of the product life cycle.
Concurrent Engineering (ii)	A systematic approach to the integrated, concurrent design of products and their related processes, including manufacture and support. This approach is intended to cause the developer, from the outset, to consider all elements of the product lifecycle from concept through disposal, including quality control, cost, scheduling and user requirements.
Concurrent Processing	synonym, see: Parallel Routing
Concurrent Product Development	see: Concurrent Engineering
Configuration	The functional and physical attributes (characteristics) of an existing or planned product or a combination of products.
Configuration Management	A process defining and controlling a product structure and its related documentation. Configuration Management includes maintaining

	revision control and history information about all changes to a document or product.
Conformance Requirement	A precise, text definition of a characteristic required to be present in a conforming implementation.
Conformance Testing	The testing of a candidate product for the existence of specific characteristics required by a standard in order to determine the extent to which that product is a conforming implementation.
Constraint	A condition (typically pertaining to activity/work selection and/or completion) which must be met during work processing; failure to meet a constraint may causes an exception condition or other defined procedure.
Controls	synonym, see: Constraint
CPD	Concurrent Product Development
CPU	Central Process Unit

D

Data	A representation of information in a formal manner suitable for communication, interpretation, or processing by human beings or computers.
Data Exchange	The storing, accessing, transferring, and archiving of data.
Data Specification Language	A set of rules for defining data and their relationships suitable for communication, interpretation, or processing by computers.
Data Translation	Translation of PDM data from one format to another via converters such as IGES or supplier and user supplied translators.
Data Transport	The action of moving PDM managed information to meet the needs of distributed environments. Information may be either moved or copied. Unlike data translate, data transport maintain a consistent data format.
Data Vault and Document Management	The process of controlling design data. Components include check-in/check-out, release level maintenance, access security, and promotion

authorisation.

Database	A data structure for accepting, storing and providing on demand data for multiple independent users.
DBMS	Data Base Management System
DCS	Diagnostic Communication System
Deadline	A time based scheduling constraint, which requires that a certain activity (or work item) be completed by a certain time (the 'deadline').
Declarative Knowledge	Knowledge represented by facts, rules and theorems. (Note: Usually, declarative knowledge cannot be processed without first being translated into procedural form.)
Deduction	see: Deductive Inference
Deductive Inference	An inference which derives a logical conclusion from a specific set of premises. (Note: Deduction is the only truth-preserving inference.)
De-Facto Standard	see: Publicly Available Specification
Deliverable Document	Documents that are to be delivered to internal or external users or prepared for another (e.g. public or marketing) interest
Demon	A procedure that is invoked without being called explicitly whenever an alteration, an addition, or a deletion occurs.
Design for Assembly	see: Design for Manufacturing/Assembly
Design for Maintainability	see: Design for Manufacturing/Assembly
Design for Manufacturing	see: Design for Manufacturing/Assembly
Design for Manufacturing/ Assembly	A comprehensive approach to produce goods with integrating the design process with materials, manufacturing methods, process planning, assembly, testing, and quality control.
Design for Test	see: Design for Manufacturing/Assembly

Design to Cost	A development methodology that treats cost as a design parameter. A realistic cost objective is established based on customer affordability, cost models are used to project the cost early in the development cycle, and a variety of techniques such as value analysis and DFM are used to achieve the cost objective.
DFA	Design for Assembly
DFM	Design for Manufacture
DFMA	Design for Manufacture/Assembly
DFT	Design for Test
Digital Pre-Assembly	Process of electronic mock-up with CAD modelling.
Directed Graph	synonym, see: Process
DNC	Direct Numerical Control
Domain (AI)	A specific field of knowledge or expertise.
DPA	Digital Pre-Assembly
DTC	Design to Cost
Dynamic Black-Box Testing	Called sometimes as Behavioural Testing; the testing way when testers are testing how a system actually behaves when it is used.

E

ECN	Engineering Change Notice
ECO	Engineering Change Order
ECP	Engineering Change Proposal
ECTS	European Credit Transfer System
EDI	Electronic Data Interchange
EDIF	Electronic Design Interchange Format
EDM	Electrical Discharge Machining

EDM Operator	Works at enterprises where metals (conductive materials) are processed with metal cutting machines operating on the principle of electrical discharge. Usually, he/she operates sinking or wirecutting EDMs with numerical control and processes parts according to a drawing and a control program.
Effectiveness	An indicator in a product structure which specifies the versions at which a component part is used. These indicators generally specify a range of either dates, serial numbers, or build lots.
EL	Existing Level of skills and knowledge
Electronic Data Interchange	The exchange, between organisational entities, of computer processable data in standard format.
Electronic Design Interchange Format	EIA/ANSI standard which defines the file format for communicating 2D graphics and interconnection information for fabricating printed circuit boards.
Element	synonym, see: Workflow Participant
EML	Federation of Estonian Engineering Industry. An umbrella organisation, which develops and represents Estonian metal, engineering and electronics industries and consolidates the basic manufacturing potential in these areas.
Engineer	A technical and/or technology specialist with higher education in different fields of engineering activity.
Engineering Management	The management of the engineering and technical effort to transform a conceptual requirement into an operational system. It includes the totally integrated effort of design engineering, test engineering, production engineering, logistics engineering to meet cost, technical performance and schedule objectives.
Equipment and Materials Requisition	An order for items required to support part manufacturing.
ES	Expert system

Escalation	A procedure (automated or manual) which is invoked if a particular constraint or condition is not met.
Event	An occurrence of a particular condition (which may be internal or external to the workflow system) which causes the workflow management software to take one or more actions.
Exchange Structure	A computer interpretable format used for storing, accessing, transferring, and archiving of data.
Expert System	A knowledge based system that provides for expertly solving problems in a particular domain or application area by drawing inferences from a knowledge-base developed from human expertise. (Notes: The term 'expert system' is sometimes used synonymously with 'knowledge-based system', but should be taken to emphasise expert knowledge. Some expert systems are able to improve their knowledge base and develop new inference rules based on their experience with previous problems.)
EXPRESS	A formal information requirements specification language originally developed for the specification needs of ISO 10303 standard (Industrial automation systems and integration – Product data representation and exchange)

F

Failure Modes and Effect Analysis	A procedure in which each potential failure mode in every sub-item of an item is analysed to determine its effect on another sub-item and on the required function of the item
Failure Reporting and Corrective Action System	Software for tracking and solving problems during design and development. Features include full database manager, tracking system for documenting controls, user definable reports, built in expert searches, hot keys for quick help. Menu driven database management, allows selection of data elements, sorts on data and summary reports of any type. Handles encoded or uncoded information, translates any user language.
Fault Tree Analysis	A top-down hierarchical analysis of faults to identify

the various fault mechanisms and their cause.

FDL	Factory Data Link
FEA	Finite Element Analysis
Feature	An area of interest on an item that is described as a unit for some purpose. A feature serves as a means of calling attention to or attaching properties to any portion of an item design. The allowable items to which a feature applies are parts, materials or components. (Notes: A portion is either a subset of the item design, or is the entire design. A feature may exist without feature properties attached to it. Such a feature may be noted because it is a subset of an item design that is frequently incorporated in other design.)
Feature Property	Data that is associated with all or a portion of the design of an item. Feature properties are design intent, styling, material composition, method of manufacture, function, or physical properties.
Features Technology	A variation of group technology with a focus on coding and classifying based on part features.
FEDIS	Finite Element Data Interchange System
FEM	Finite Element Method
FIFO	First In - First Out
Fixture	A device to hold and locate a part during manufacturing and inspection.
Flexible Manufacturing System	A system composed of numerically controlled manufacturing units and transport mechanisms that allows for easy adjustment to changes in manufacturing tasks.
Flow	The direct motion of a set of objects (physical or informational) in space and time.
Flow Control	The act or the function of checking and driving the flow according to a given purpose.
Flow Diagram	synonym, see: Process Definition
Flow Schematic	synonym, see: Process Definition

FMC	Flexible Manufacturing Cell
FMEA	Failure Modes and Effects Analysis
FMS	Flexible Manufacturing System
FRACAS	Failure Reporting and Corrective Action System
Framework	An extensible structure for describing a set of concepts, methods, technologies, and cultural changes necessary for a complete product design and manufacturing process. Frameworks provide a mechanism that guides users through a proper order of steps, applications, and data conversions via a common interface to the process being followed.
Front-End Application	synonym, see: Client Application
Front-End Design Analysis	Process of basing early, important design and supportability decisions on the results of analyses of a systems hardware design, and the alternative support concepts appropriate to it, starting at the very beginning of a conceptual design.
FT	Features Technology
FTA	Fault Tree Analysis

G

General skills and knowledge	Requirements for general skills and knowledge in the fields of activity.
Generic Resource	An integrated resource whose contents are context independent.
Grinder	A metal-working machine operator who is specialised in operating grinding machines and employed by a metal-working or other enterprise. He/she operates a grinding machine (or machines) and/or services a logic controlled grinding machine (or machines).
Group Technology	A coding and classification system to identify similarities in part geometry, features, characteristics and processes. It is use to aid in design retrieval, part standardisation, manufacturing cell design, and production scheduling.

GT	Group Technology

H

Hierarchical Planning	Planning that refines the vague parts of a plan into more detailed subplans by generating a hierarchical representation of it.
History Repository	synonym, see: Audit Data
HR	Human Resources
Human Task	synonym, see: Manual Activity

I

IAL Piemonte	A vocational non-profit training organisation established by Italian trade union CISL in the year 1955.
IC	Integrated Circuit
IGES	Initial Graphics Exchange Specification
Independent PDM Systems	PDM systems which are available products distinct from any other application. These systems may be integrated with any number of other applications. These systems contrast with Bundled PDM Systems.
Induction	see: Inductive Inference
Inductive Inference	An inference which starts with given facts and concludes with general hypotheses.
Industrial Process	A process with the purpose of providing direct contribution to the production of goods and associated services.
Inference	Reasoning by which conclusions are derived from known premises. (Notes: In artificial intelligence a premise is either a fact or a rule. 'Inference' refers both to the process and its result.)
Information Model	A formal model of a bounded set of facts, concepts or instructions.
Inheritance (AI)	In a hierarchical knowledge representation, default

acquisition of class characteristics by one or more of its subclasses. (Note: There is multiple inheritance in non-hierarchical knowledge representations.)

INNOMET	An acronyme for development of the innovative database model for adding innovation capacity of labour force and entrepreneurs of the metal engineering, machinery and apparatus sector.
Instance	The representation of a single enactment of a process, or activity within a process, including its associated data. Each instance represents a separate thread of execution of the process or activity, which may be controlled independently and will have its own internal state and externally visible identity, which may be used as a handle, for example, to record or retrieve audit data relating to the individual enactment.
Instruction	synonym, see: Activity
Instruction Sheet	synonym, see: Process
Instruction Sheet Definition	synonym, see: Process Definition
Instruction Sheet Instance	synonym, see: Process Instance
Integrated Product Development	A philosophy that systematically employs a teaming of disciplines to integrate and concurrently apply all necessary processes to produce an effective and efficient product that satisfies customers needs.
Integrated Resource	A group of resource constructs used as the basis for product data.
Interface	The functional and physical characteristics required to exist at a common boundary. In development, a relationship among two or more entities in which the entities share, provide, or exchange data.
Interoperability	synonym, see: Workflow Interoperability
In-Tray	synonym, see: Worklist
Inventory Control	The act or the function of checking and maintaining stock items at a desired level.

Invoked Application (i)	A workflow application that is invoked by the workflow management system to automate an activity, fully or in part, or to support a workflow participant in processing a work item.
Invoked Application (ii)	synonym, see: Workflow Application
IPD	Integrated Product Development
IPS	INNOMET Prototype Solution
Iteration	A workflow activity cycle involving the repetitive execution of one (or more) workflow activity(s) until a condition is met.

J

JIT	Just in Time
Just in Time (i)	A collective approach of continuous improvement in manufacturing, based on detection and progressive elimination of all waste.
Just in Time (ii)	The fact (with the related production organisation) of supplying work desks with the strictly needed quantity in due time.

K

KB	see: Knowledge-Base
K-Base	see: Knowledge-Base
KBS	Knowledge-based system
Knowledge (AI)	A collection of facts, events, and beliefs, organised for systematic use.
Knowledge (INNOMET)	Familiarity, awareness, or understanding gained through experience or study.
Knowledge Acquisition	The process of locating, collecting, and refining knowledge and converting it into a form that can be further processed by a knowledge-based system. (Note: Knowledge acquisition normally implies the intervention of a knowledge engineer, but it is also an important component of machine learning.)

Knowledge Engineer	A person who obtains knowledge from a domain expert and other knowledge sources and who organises it as a knowledge base.
Knowledge Engineering	The discipline concerned with acquiring knowledge from domain experts and other knowledge sources and incorporating it into a knowledge base. (Note: Knowledge engineering sometimes refers particularly to the art of designing, building and maintaining expert systems and other knowledge-based systems.)
Knowledge Representation	The process or result of encoding and storing knowledge in a knowledge base.
Knowledge Tree	A hierarchical semantic network such as a tree-like directed graph.
Knowledge-Base	Database that contains inference rules and information about human experience and expertise in a domain. (Note: In self-proving systems, the knowledge base additionally contains information resulting from the solution of previously encountered problems.)
Knowledge-Based System	An information processing system that provides for solving problems in a particular domain and application area by drawing inferences from a knowledge base. (Notes: The term 'knowledge-based system' is sometimes used synonymously with 'expert system', which is usually restricted to expert knowledge. Some knowledge-based systems have learning capabilities.)
KTH	Stockholm Royal Institute of Technology. A technical university with first-class education and research. It provides one-third of Sweden's capacity for engineering studies and technical research at post-secondary level.

L

LdV	Leonardo da Vinci programme
Leonardo da Vinci	The Leonardo da Vinci programme is part of the European Commission's new Lifelong Learning Programme and is designed to build a skilled workforce through European partnerships. Leonardo

funds overseas work placements and the development of training materials with the objective of improving the provision of Vocational Education and Training (VET) across Europe.

Life Cycle	The description of the distinct phases through which each product passes during its product life. This includes phases such as requirements definition, concept design, production, operation, maintenance, and disposal of the product.
LIFO	Last In – First Out
LMA	Association of Mechanical Engineering and Metalworking Industries of Latvia. An umbrella organisation, which develops and represents Latvian metal, engineering and electronics industries and consolidates the basic manufacturing potential in these areas.

M

Machine Learning	The process by which a functional unit improves its performance by acquiring new knowledge or skills, or by reorganising existing knowledge or skills.
Machine-tool Worker	A worker employed by a metalworking enterprise or other enterprise where materials are processed by turning, milling or grinding., who works with turning, milling and grinding machines (or lathes), services logic controlled processing machine(s), and produces elements on the basis of drawings or samples.
Main skills and knowledge	Requirements for skills and knowledge necessary for the profession (in INNOMET system referred also as Basic skills and knowledge)
Manual Activity	An activity within a business process which is not capable of automation and hence lies outside the scope of a workflow management system. Such activities may be included within a process definition, for example to support modelling of the process, but do not form part of a resulting workflow.
Manual Definition	That part of the process definition which includes the manual aspects only versus the automated (workflow).
Manual Step	synonym, see: Manual Activity

Manual Work	synonym, see: Manual Activity
Manufacturing Management	The function of directing or regulating the flows of goods through the entire production cycle from requisitioning of raw materials to the delivery of the finished product, including the impact on resources management.
Manufacturing Planning	The function of settings appropriate levels or limits to the various future manufacturing operations according to sales forecast, economic constraints and resources requirements and availability.
Manufacturing Resource Planning	The implementation of management plans that evaluate and predict the demand for each element in the manufacturing process at a given time.
Manufacturing	The function or act of convert or transform material from raw material or semi-finished state to a state of further completion.
Material Requirements Planning	A priority planning technique which is driven by a master production schedule and which relates component demands to the production schedules for parent items.
MAP	Manufacturing Automation Protocol
MDM	Manufacturing system life cycle data Management
Mechatronic	An industry specialist who performs one or several of the following activities: designs simpler mechatronics systems, manages composition, testing, and commissioning of mechatronics systems, organises process monitoring and arrangement of supervision over the functioning of mechatronics systems in various areas of application.
Metaknowledge	Knowledge about the structure, use and control of knowledge. (Note: Metaknowledge may be an effective control mechanism in expert systems and other knowledge-based systems.
Metrics	Measures used to indicate progress or achievement.
MI	Module Interface

Miller	A worker operating metal-working machines who has specialised in operating milling machines. He/she works at a metal-working or other enterprise. Miller operates milling machine and/or services milling machine(s) with numerical control, producing parts by a drawing or a sample.
MIS	Management Information System
Model (i)	synonym, see: Process
Model(ii)	A representation or description of an entity or a system, describing only the aspects to be relevant in the context of its purpose.
Model Based (Expert) System	An expert system that integrates the structure and function of domain model.
Model Definition	synonym, see: Process Definition
Model State	synonym, see: Process State
MRP	Material Requirements Planning
MRPII	Manufacturing Resources Planning

N

Navigation Rule	synonym, see: Transition Condition
NGT	Nominal Group Technique
NL	Needed Level of skills and knowledge
Nominal Group Technique	A technique used by teams to generate new ideas on a particular subject. Similar to brainstorming.
Non-Automated Activity	synonym, see: Manual Activity
Nonhierarchical Planning	Planning that selects skeleton plans from a predetermined set of plans and instantiates them by means of problem-solving operation for a particular problem context.

O

Object Oriented Data Base Management System	A data base management system in which data objects are encapsulated by classes that have pre-defined characteristics. Objects added to the data

	are accessible only through messages, which they recognise. Object oriented databases are expected to be more frequently used in future PDM systems.
Ontology (i)	The structure of a system.
Ontology (ii)	A systematic arrangement of all of the important categories of objects or concepts which exist in some field of discourse, showing the relations between them.
OODBMS	Object Oriented Data Base Management System
Operation (i)	synonym, see: Activity
Operation (ii)	An identifiable object that denotes a service that can be requested.
Opportunistic Planning	Planning that includes opportune problems solving actions in a plan under development.
Organisation Model	A model which represents organisational entities and their relationships; it may also incorporate a variety of attributes associated with the entities. Such a model may be realised in a directory or other form of database.
Organisation Role	A group of participants exhibiting a specific set of attributes, qualifications and/or skills.
Organisational Directory	synonym, see: Organisational Model
Organisational Groups	synonym, see: Organisational Role

P

Parallel Routing	A segment of a process instance under enactment by a workflow management system, where two or more activity instances are executing in parallel within the workflow, giving rise to multiple threads of control.
Parallel Workflow Processing	synonym, see: Parallel Routing
Parametric Design	A design methodology that utilises special case searching and solution techniques to provide dimension driven capability applied primarily to uncoupled geometric constraints and simple

equations.

Part Classification	Mechanisms to classify parts or other elements of a product by their function or by the processes used to manufacture them (see Group Technology). Part classification is used to find PDM managed components to use in a product design or PDM managed processes to use in the design of similar processes.
Part Model	The complete representation of a given part which captures part design aspects (including all elements that define a part and their relationships) as interpreted from the technical data packet.
Part Process Plan	The detailed plan for the manufacturing of a part. It includes a sequence of steps to be executed that call out the selected machines, fabrication, operation steps, setups, routings, and in-process inspection requirements employed to produce a part.
Parts List Structure	A structural description of a product in terms of a hierarchy of all distinct usage of its constituents.
PAS	Publicly Available Specification
PDM	Product Data Management
PDES	Product Data Exchange Specification
Performance Baseline.	A set of metrics, measures, and statistics that define the current performance of the product development function and capabilities.
Personal characteristics and abilities	Requirements for personal and individual characteristics and physical abilities necessary for the profession (also referred earlier in INNOMET system as Personal skills or Personal identity).
Petri Net (i)	A mathematical tool for modelling distributed systems and, in particular notions of concurrency, non-determinism, communication and synchronisation.
Petri Net (ii)	synonym, see: Process
Planning (AI)	The process of deciding beforehand the manner and order applying actions in order to reach a desired

goal.

Player	synonym, see: Workflow Participant
PLM	Product Lifecycle Management
PLCS	Product Life Cycle management System
Post-Condition	A logical expression, which may be evaluated by a workflow engine to decide whether a process instance or activity within a process instance is completed.
PPCS	Production Planning Control System
Pre-Condition	A logical expression which may be evaluated by a workflow engine to decide whether a process instance or activity within a process instance may be started.
Presentation Information	The information necessary to create a presentation of product information through visualisation. Presentation information is meaningful only if it is associated with product information.
Procedural Knowledge	Knowledge which explicitly indicates the steps to be taken in order to solve a problem or to reach a goal.
Process (i)	A structured set of activities involving various enterprise entities and finalised by a global purpose.
Process (ii)	A formalised view of a business process, represented as a co-ordinated (parallel and/or serial) set of process activities that are connected in order to achieve a common goal.
Process (iii)	A particular procedure for doing something involving one or more steps or operations. The process may produce a product, a property of a product, or an aspect of a product.
Process Control	The function of maintaining a process within a given range of capabilities
Process Definition	The representation of a business process in a form, which supports automated manipulation, such as modelling, or enactment by workflow management system. The process definition consists of a network of activities and their relationships, criteria, to

	indicate the start and termination of the process, and information about the individual activities, such as participants, associated IT applications and data, etc.
Process Definition Instance	synonym, see: Process Instance
Process Definition Mode	The time period when manual and/or automated (workflow) descriptions of a process are defined and/or modified electronically.
Process Element	synonym, see: Activity
Process Enactment	synonym, see: Process Execution
Process Execution Environment	synonym, see: Workflow Enactment Service
Process Execution	The time period during which the process is operational, with process instances being created and managed.
Process Flow Data	synonym, see: Workflow Relevant Data
Process Instance	The representation of a single enactment of a process
Process Modelling	synonym, see: Process Definition Mode
Process Plan (i)	Representation of a complete package of information needed to achieve a process.
Process Plan (ii)	The sequences of processes required to realise or produce a given product.
Process Planning	Analysis and design of the sequence of processes, resources requirements, needed to produce goods and services. This definition includes discrete part manufacturing and continuous processes.
Process Role	A mechanism that associates participants to a collection of workflow activity(s)
Process Rule	synonym, see: Transition Condition
Process State	A representation of the internal conditions defining the status of a process instance at a particular point in time. Most workflow management systems

maintain such status information as part of their workflow control data.

Product	A thing or substance produced by a natural or artificial process.
Product Data	A representation of information about a product in a formal manner suitable for communication, interpretation, or processing by human beings or by computers.
Product Data Management	The functions of managing, organising and tracking product data typically via a database management system.
Product Information	Facts, concepts, or instructions about a product.
Product Information Model	An information model which provides an abstract description of facts, concepts and instructions about a product.
Product Structure	Defines a product in terms of its composition as a set of constituents or consumed products. A product may be assembled from the constituents or produced by consuming other products or both.
Production Activity Control	The function of routing and dispatching the work to be achieved through the production facilities.
Production Capacity	The highest sustainable output rate that can be achieved with the current product specification, production scheme (mix of goods and products to be manufactured) and available resources.
Production Control	The function of monitoring and controlling the movements of goods through the entire manufacturing cycle.
Production Forecast	The marketing projections translated into meaningful terms for production.
Production Monitoring	The function of checking and driving the status and the progress of production processes and activities.
Production Order Control	Control of the progress of each customer order, or stock through the successive operations of the production cycle.
Production Planning	An information processing system used to generate,

Control System	execute and control manufacturing plans.
Profession	An area of activity based on similar duties and activities.
Professional certificate	A document certifying professional qualifications.
Professional council	A co-operative body between confederations of employers/employees of the respective field of economy, professional and vocational associations and the authorised representatives of the ministry.
Professional qualification	The level of competence required in the given profession, which is recognized based on regulated, historical or internationally evolved requirements. Having the professional qualification allows one to act in the given profession, unless otherwise provided by legislation.
Professional standard	A document approved by a professional council, which describes the work and defines the competencies necessary for performing it at a specific professional level. It also establishes the requirements on knowledge, skills, experience, values and personal characteristics necessary for the professional qualification.
Promotion	The act of moving a piece of product information from one Promotion Level or state to another in a PDM managed approval process.
Promotion Level	Product information is assigned to Promotion Levels. These are defined and named by the system administrator (e.g. Preliminary Release, Prototype Release, Production Release) Each Promotion Level has its own set of authorisation for access and approval.
Publicly Available Specification	The official term, used by the international standardisation community, for 'de-facto standard'.

Q

QFD	Quality Function Deployment
Quality Assurance	A planned and systematic pattern of all actions necessary to provide adequate base for the management and the technical planning and controls to establish correct technical requirements

for design and manufacturing, and to manage and design activity standards and specifications.

Quality Function Deployment	A structured planning and decision-making methodology for capturing customer requirements and translating those requirements into product characteristics, part characteristics, process plans, and quality/process control requirements using a series of matrices.
Quality Reports	A formatted compilation of inspection results, resources usage and condition results, and quality data.

R

RDBMS	Relational Data Base Management System
Relational Data Base Management System	Database management systems that maintain data records and indices in tables. Relationships may be created and maintained across and among the data and tables.
Release Action Notes	Messages sent to people whose action is required as part of a release process.
Release Level	Synonym for Promotion Level
Requirement	Characteristics that identify the accomplishment levels needed to achieve specific objectives for a given set of conditions.
Resource	Something that may be described in terms of behaviour, a capability, or a performance measure that is pertinent to the process.
Review	A process in which one or more person checks changed documents or data to determine if the changes have been correctly performed.
Review Action Notice	Messages sent to people whose review is required for a defined release procedure.
Revision	A modification of any product data after that data has been released for use.
Role (i)	synonym, see: Organisational Role

Role (ii)	synonym, see: Process Role
Role Model	synonym, see: Organisational Model
Role Player	synonym, see: Workflow Participant
Routing	A sequential list of manufacturing processes which are required to manufacture a given part.
Routing Condition	synonym, see: Transition Condition
Routing Definition	synonym, see: Process Definition
Routing List	An electronic routing list, similar that used in the paper environment, which can be attached to a packet in a PDM system and used to guide the packet through an engineering workflow.
Rule-Based System	A knowledge based system that draws inferences by applying a set of if-then rules to a set of facts following given procedures.
Run Time Operation	synonym, see: Process Execution

S

Schedule	A timetable for planned occurrences of activities.
Scheduling	The act of defining a schedule.
Semantic Net(work)	A concept based knowledge representation in which objects or states appear as nodes connected with links that indicate the relationships between various nodes.
Sequential Routing	A segment of a process instance under enactment by a workflow management system, in which several activities are executed in sequence under a single thread of execution (No split or join condition occur during sequential routing).
Serial Routing	synonym, see: Sequential Routing
Shell	An empty expert system structure into which a particular field of expertise is built. (Note: An expert system shell typically consists of a high-level language for knowledge representation, one or more inference engines, and interface programs.)

Skill	Ability, proficiency, facility, or dexterity that is acquired or developed through training or experience.
SNA	System Network Architecture
Special skills and knowledge	Requirements for skills and knowledge related to specialisation.
Split	synonym, see: AND-Split
SQL	Structured Query Language
State Transition Diagram	synonym, see: Process Definition
State Transition	A movement from one internal state (of a Process or Activity Instance) to another within a workflow, reflecting a change in the status of the workflow. The state transition may be in response to an external event, a user API call, a routing decision taken by the workflow engine, etc.
Static Test	Testing something that is not running, so as to examine and review only.
STEP	'Standard for the Exchange of Product Model Data', 'Standard Exchange Protocol' etc. unofficial names of ISO 10303 Series standards (Industrial automation systems and integration – Product data representation and exchange).
Step	synonym, see: Activity
Step Instance	synonym, see: Activity Instance
Step State	synonym, see: Activity State
Structure	A set of interrelated parts of any complex thing, and the relationships between them.
Sub Workflow	synonym, see: Sub Process
Sub-Assembly	A constituent that is an assembly.
Subflow	synonym, see: Sub-Process
Sub-Process	A process that is enacted or called from another (initiating) process (or sub process), and which

forms part of the overall (initiating) process. Multiple levels of sub process may be supported.

Supervisor   synonym, see: Administrator

Supplier   A supplier is the person or organisation responsible for producing that design, plan, or physical object under a contract for a contractor.

Sysware   Hard and Soft components of an integrated computer system involving printed and On-line documentation, database structure, program components under a common concept.

T

Task (i)   synonym, see: Activity

Task (ii)   synonym, see: Workflow Participant

Task Instance   synonym, see: Activity Instance

Task Manager   synonym, see: Worklist Handler

Taxonomy   (1) Division into ordered groups or categories and (2) The classification, or categorization, of things.

TCEB   Tallinn City Enterprise Board. A local government board of the city of Tallinn responsible for areas of regional economic and business development, cluster development, labour development and city trade policy.

Technical Performance Measurement   The continuing prediction and demonstration of the degree of anticipated or actual achievement of selected technical objectives. It includes an analysis of any differences among the 'achievement to date', 'current estimate', and the specification requirement.

Test-to-Fail   Test cases that are designed and running with sole purpose of breaking the Sysware to assure that it does what it is specified to do in ordinary circumstances to find bugs by trying things that should force them out (sometimes called Error-Forcing)

Test-to-Pass   Test when you really assure only that the Sysware minimally works, you do not push its capabilities, you do not see what you can do to break it, you

apply the simplest and most straightforward test cases.

To-Do-List	synonym, see: Worklist
Tool (i)	A workflow application that is invoked by the workflow management system.
Tool (ii)	synonym, see: Workflow Application
Tool (iii)	synonym, see: Invoked Application
Toolmaker	A worker in companies specialised in making tools, as well as companies of metal, electric, electronic and plastics industry, and appliances building companies, who makes, finishes, maintains, repairs and tests tools and jigs necessary in serial production: dies, forms, conductors, measuring and fixation jigs.
Transition Condition	A logical expression which may be evaluated by a workflow engine to decide the sequence of activity execution within a process.
Transition Rule	synonym, see: Transition Condition
Trigger (i)	A mechanism that detects some activity, or change in state of some object, in the PDM system and as a result, can initiate some subsequent action.
Trigger (ii)	synonym, see: Event
Truth Maintenance System	A knowledge-based system that maintains the truth of its knowledge-base by keeping track of the dependencies between beliefs. (Note: Truth maintenance consists mainly of deleting items that have led to false inferences.)
TuAKK	Turku Vocational Adult Education Centre. The leading adult education centre in South-western Finland.
Turner	A worker with metal processing machine-tools specialised in working on the lathe who works in a metal processing or other company. He or she works on the lathe (lathes) and/or services numerically controlled lathe(s), making components according to a drawing or a model.
TUT	Tallinn University of Technology. Established in 1918 with 9 faculties and about 1250 staff members

and 8050 students is the largest technical education institution of Estonia.

U

User   synonym, see: Workflow Participant

User Groups   synonym, see: Organisational Role

V

Value Cycles   The five typical processes of a discrete manufacturing enterprise (business development cycle, product development cycle, production cycle, order cycles, supply chains).

Variational Design   A design methodology that utilises fundamental graph theory and numerical solution techniques to provide constraint driven capability applied to a coupled combination of geometric constraints and engineering equations.

Vault   The PDM system's computerised data storage area and databases. Information stored in PDM vaults are controlled by system rules and processes.

Version   Versions of an object or product structure are used to represent the different objects or structures as they change during their life as an object or product.

VET   Vocational Education and Training

Vocation   The set of knowledge, skills, experience, values and attitudes necessary for the performance of duties which is acquired by learning and working in the corresponding profession.

W

WAPI   Workflow APIs and Interchange Formats

WBS   Work Breakdown Structure

Welder   A worker mainly working in a company producing metal products and constructions; he/she is needed for construction, installation, maintenance, and repair work.

Welding	A non-separable joining of metals by local melting or joint deforming.
WFM Application	synonym, see: Worklist Handler
WFM Front End	synonym, see: Worklist Handler
While Loop	synonym, see: Iteration
White-Box Test	A test within the tester has access to the programs code and can examine it for clues to help testing (sometimes called also Clear-Box Testing).
Work	synonym, see: Work Item
Work Breakdown Structure	A mechanism to plan and mange the process of developing a product design, to produce s product, and to support it. WBS is a hierarchical tree structure decomposing work into smaller elements, which can be used for assigning resources, budgets, schedules, etc. WBS provides a basis for controlling projects.
Work Element	synonym, see: Activity
Work Element Instance	synonym, see: Activity Instance
Work Item	The representation of the work to be processed (by a workflow participant) in the context of an activity within a process instance.
Work Item Pool	The representation of all work items accessible from a particular workflow engine.
Work Object	synonym, see: Work Item
Work Performer	synonym, see: Invoked Application
Work Performer	synonym, see: Workflow Participant
Work Pool Item	synonym, see: Workflow Participant
Work Queue	synonym, see: Worklist
Work Queue Item	synonym, see: Workflow Participant
Workflow	The automation of a business process, in whole or part, during which documents, information or tasks are passed from one participant to another for

action, according to a set of procedural rules.

Workflow Activity	synonym, see: Automated Activity
Workflow API's	synonym, see: WAPI
Workflow APIs and Interchange Formats	Incorporate specifications to enable interoperability between different components of workflow management systems and applications (developed by the Workflow Management Coalition).
Workflow Application	A general term for a software program that interacts with a workflow enactment service, handling part of the processing required to support a particular activity (or activities).
Workflow Automation	synonym, see: Workflow Management System
Workflow Computing	synonym: Workflow
Workflow Computing System	synonym, see: Workflow Management System
Workflow Control Data	Data that is managed by the Workflow Management System and/or a Workflow Engine. Such data is internal to the workflow management system and is not normally accessible to applications.
Workflow Definition	The part of the process definition which comprises the automatable activities.
Workflow Definition Instance	synonym, see: Process Instance
Workflow Domain	A workflow management service that consists of one or more workflow engines which are managed as an homogenous unit, operating to a common administrative model.
Workflow Enactment Service State Data,	
Workflow Engine State Data	synonym, see: Workflow Control Data
Workflow Enactment Service	A software service that may consist of one or more workflow engines in order to create, manage and

	execute particular workflow instances. Applications may interface to this service via the workflow application programming interface (part of WAPI).
Workflow Engine	A software service or 'engine' that provides the run time execution environment for a process instance.
Workflow Execution	synonym, see: Process Execution (but only for the automated parts of process execution).
Workflow History	synonym, see: Audit Data
Workflow Interoperability	The ability for two or more Workflow Engines to communicate and work together to co-ordinate work.
Workflow Loop	synonym, see: Iteration
Workflow Management	synonym: Workflow
Workflow Management Engine	synonym, see: Workflow Engine
Workflow Management System API's	synonym, see: WAPI
Workflow Management System	A system that defines creates and manages the execution of workflows through the use of software, running on one or more workflow engines, which is able to interpret the process definition, interact with workflow participants and, where required, invoke the use of IT tools and applications.
Workflow Monitoring	The ability to track and report on workflow events during workflow execution.
Workflow Participant	A resource, which performs the work, represented by a workflow activity instance. This work is normally manifested as one or more work item items assigned to the workflow participant via the worklist.
Workflow Performer Definition	synonym, see: Process Role
Workflow Reference Model	An architectural representation of a workflow management system, identifying the most important system interfaces (developed by the Workflow Management Coalition).
Workflow Relevant Data	Data that is used by a Workflow Management

	System to determine the state transitions of a workflow instance, for example within pre- and post-conditions, transition conditions or workflow participant assignment.
Workflow Script	synonym, see: Process Definition
Workflow Service	synonym, see: Workflow Domain
Workflow State	synonym, see: Process State
Workflow System Data	synonym, see: Workflow Control Data
Workflow To-Do List Application	synonym, see: Worklist Handler
Workflow Tracking	synonym, see: Workflow Monitoring
Worklist	A list of work items associated with a given workflow participant (or in some cases with a group of workflow participants who may share a common worklist). The worklist forms part of the interface between a workflow engine and the worklist handler.
Worklist Handler	A software component that manages the interaction between the user (or group of users) and the workflow maintained by a workflow engine. It enables work items to be passed from the workflow management system to users and notifications of completion or other work status conditions to be passed between the user and workflow management system.
Workplace	A part of a room where an employee performs his or her duties. The workplace contains equipment, jigs, tools, accessories and production inventory required for work and ensures the required work conditions.

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