

# Certified Professional for Requirements Engineering

Requirements Engineering Glossary Traduzione in italiano

> Original English version by Martin Glinz



**Department of Informatics** 

2.1.0 | January 17, 2024

Requirements Engineering Research Group



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#### About the Author

Martin Glinz is a full professor emeritus at the University of Zurich (UZH). From 1993 until 2017, he was a professor of Informatics at UZH's Department of Informatics. From 2007–2016, he was the department head. His interests include requirements and software engineering — in particular modeling, validation, quality, and evolution.

He received a diploma degree in Mathematics in 1977 and a Dr. rer. nat. in Computer Science in 1983, both from RWTH Aachen University. Before joining the University of Zurich, he worked in industry for ten years, where he was active in software engineering research, development, training, and consulting. He retired in summer 2017, but he is still active in Requirements Engineering research, education, and service.

Martin Glinz has over 35 years of experience in Requirements Engineering, both academic and industrial. He is on editorial boards and program committees of major journals and conferences in software and requirements engineering and served as general chair, program chair, steering committee chair and organizer for the top international conferences in his field. He is a full member of the International Requirements Engineering Board (IREB), where he chairs the IREB Council. He received the ACM SIGSOFT Distinguished Service Award and the IEEE International Requirements Engineering Conference Lifetime Service Award in 2016 and the IEEE International Requirements Engineering Conference Most Influential Paper Award in 2017.



#### Preface

In the preface to the first edition of this glossary, published in May 2011, I wrote:

When looking for definitions of terms in Requirements Engineering, one can find definitions for almost any term by searching the web. However, such searching requires effort and the quality of the results is unpredictable. Frequently, definitions found in different sources are inconsistent with each other. Existing glossaries in Requirements Engineering textbooks mostly focus on the topics covered in these books. Systematic translations of terminology into major languages other than English are missing completely.

This glossary aims at collecting the existing knowledge on Requirements Engineering terminology and defining the core terminology carefully and consistently. In cases where more than one definition is in use or where terms are defined differently when viewed from different perspectives, multiple definitions or perspectives are included. For terms having both a general meaning and a specific meaning in a Requirements Engineering context, both meanings are defined. Important terms are annotated with hints and additional information.

This glossary has closed the gap identified above. The principle of not just compiling existing definitions but defining the core Requirements Engineering terminology carefully and consistently, has also stood the test of time. Nevertheless, after almost ten years since its initial publication, it was time for a major revision.

A good glossary should be a stable work product: users need to rely on a common terminology — which is not possible when that terminology is constantly changing. On the other hand, it would be foolish to believe that terminology does not evolve over time. In particular, the major revision of the IREB CPRE Foundation Level syllabus required adaptations and extensions of the terminology. Doing a major revision was also an occasion to include important terms from the IREB CPRE Advanced Level syllabi (which did not yet exist when the glossary was initially published). Finally, IREB and ISTQB, the International Software Testing Qualification Board, had agreed in 2019 to harmonize the quality and testing terminology in their respective glossaries.

From the 128 terms defined in the first edition of the glossary, 42 (i.e., about one third) remained unchanged. 67 definitions underwent minor or merely syntactic changes. We rewrote 17 definitions, deleted two ones, and added 85 new definitions. Major additions concern terminology about agile, modeling, prototyping, and product lines. We also added several basic terms such as activity, method, process, or technique.

Many major changes were due to the harmonization of terminology with ISTQB. However, we also modernized fundamental terms: for example, we simplified the definitions of requirement and Requirements Engineering and made major changes to the notes in the definition of system. The major revision of the glossary was also an occasion to mark explanatory notes clearly in all definitions, separating them from the main definition phrase.

The translations of the terminology into other languages, which were an integral part of the previous versions of this glossary, are now published as separate dictionaries of terminology. I gratefully acknowledge the work performed by all the translators.

Karol Frühauf owes my deepest thanks for carefully reviewing all my definition drafts and for fruitful discussions that led to major improvements of this glossary. I also thank Xavier Franch and Stan Bühne for many helpful comments. Most of all, I thank my wife Angelika. Without her love, patience and understanding, most of my professional work, including this one, would not have been possible.

Martin Glinz

Zurich, October 2020

#### Acknowledgements

I gratefully acknowledge the contributions of several people to this glossary. Discussions and joint work with Klaus Pohl, Chris Rupp and Thorsten Weyer shaped several definitions in the first version of this glossary. Karol Frühauf carefully reviewed my drafts of all definitions in version 2.0. Karol's review comments and the subsequent discussions between him and me were valuable sources for improvement.

The alignment of terminology between the glossaries of IREB and ISTQB was achieved in intense discussions between Karol Frühauf and me for IREB and Matthias Hamburg and Armin Born for ISTQB.

Xavier Franch was the IREB Council shepherd for this glossary. He carefully reviewed the final draft and provided feedback that improved the final document in many places.

Many people contributed to the translations of the terminology into languages other than English. Only the translation into German was done by myself.

#### Translation

The translation of the glossary terms into Itaian from the English glossary was provided by Salvatore Reale and Cristina Sobrero. The English terms and definitions were taken 1:1 from the English glossary with the kind permission of the author.

#### CPRE Online Glossary

The CPRE Glossary is available online in all supported languages: <u>https://www.ireb.org/en/cpre/glossary/</u>



#### Version History

Version	Date	Change
1.1.0	May 2011	Initial Document
2.0.0 May 2021		Major revision and extension of terminology covered by this glossary, including important terms from the CPRE Advanced Levels.
		Aligned with the terminology used in the CPRE Foundation Level 3.0. Implemented the alignment between the IREB and ISTQB glossaries.
		Created independent dictionaries of RE terminology for languages other than English.
2.0.1	December 2022	Offset in the English – Italian dictionary fixed
2.0.2	January 2024	Updated to new corporate design
2.1.0	January 2024	Correction of the swapped definitions for the terms <i>redundancy</i> and <i>refactoring</i> as well as for <i>statechart</i> and <i>state-transition diagram</i>



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## 1 Definitions of Terms

Terms formatted in **bold** are key terms that have to be known on the IREB CPRE Foundation Level.

Termine (Italiano)	Term (English)	Definition
Accettazione	Acceptance	The process of assessing whether a $\underline{\uparrow}$ system satisfies all its $\underline{\uparrow}$ requirements.
Activity diagram	Activity diagram	A diagram type in $\Upsilon$ UML which models the flow of actions in some part of a $\Upsilon$ system, including $\Upsilon$ data flows and areas of responsibility where necessary.
<b>Adeguatezza</b> (di un requisito)	Adequacy (of a requirement)	The degree to which a $\underline{\uparrow}$ requirement expresses the $\underline{\uparrow}$ stakeholders' true and agreed desires and needs (i.e., those they had actually in mind when stating the requirement).
Affidabilità	Reliability	The degree to which a <u></u> system performs specified functions under specified conditions for a specified period of time. <b>Note:</b> Reliability may be stated as a <u></u> quality requirement.
Agile	Agile	<ul> <li>In general:         <ul> <li>Able to move quickly and easily.</li> <li>Quick, smart, and clever.</li> </ul> </li> <li>In software development:         <ul> <li>A development approach which builds a product <u>1</u> incrementally by dividing work into <u>1</u> iterations of fixed duration (<u>1</u> timeboxes).</li> </ul> </li> <li>Note:         <ul> <li>Agile development is characterized by focusing on delivering a working product in each iteration, collaboration with <u>1</u> stakeholders with frequent feedback and adaptation of plans after each iteration based on feedback and changed <u>1</u> requirements.</li> </ul> </li> </ul>
Ambiguità	Ambiguity	The contrary of $\rightarrow$ unambiguity



Termine (Italiano)	Term (English)	Definition
<b>Ambito</b> (dello sviluppo di un sistema)	<b>Scope</b> (of a system development)	The range of things that can be shaped and designed when developing a $\underline{\uparrow}$ system.
Analisi dei requisiti	Requirements analysis	<ul> <li>Analysis of elicited <u>*</u>requirements in order to understand and document them.</li> <li>Synonym for <u>*</u>Requirements Engineering.</li> </ul>
Analisi strutturata	Structured Analysis	An approach for specifying the $\uparrow$ functionality of a system based on a hierarchy of $\uparrow$ data flow diagrams. Data flows as well as persistent data are defined in a data dictionary. A $\uparrow$ context diagram models the sources of incoming and the destinations of outgoing $\uparrow$ data flows.
Artefatto	Artifact	Synonym for $\underline{\uparrow}$ work product.
Associazione	Association	In UML: A relationship between two $\underline{\uparrow}$ classes in a $\underline{\uparrow}$ UML $\underline{\uparrow}$ class model.
Attività	Activity	An action or a set of actions that a person or group performs to accomplish a $\underline{\uparrow}$ task.
Attività	Task	A coherent chunk of work to be done.
Attore	Actor	<ul> <li>A person in some <u>↑</u>role, a <u>↑</u>system or a technical device in the context of a subject under consideration that interacts with that subject.</li> <li>Note:</li> <li>In RE, the subject under consideration typically is a <u>↑</u>system. In testing, it may be a test <u>↑</u>object.</li> </ul>
Attributo	Attribute	A characteristic property of an $\underline{\uparrow}$ entity or an $\underline{\uparrow}$ object.
Backlog	Backlog	$\rightarrow$ Product backlog, $\rightarrow$ sprint backlog
Baco	Bug	<u>→</u> Defect
Baseline	Baseline	A stable, change-controlled $\uparrow$ configuration of $\uparrow$ work products. <b>Note:</b> Baselines serve for $\uparrow$ release planning and release definition as well as for project management purposes such as effort estimation.



Termine (Italiano)	Term (English)	Definition
Baseline dei requisiti	Requirements baseline	A $\underline{\uparrow}$ baseline for a set of $\underline{\uparrow}$ requirements.
Branch, ramo	Branch	A line of <u>configurations</u> or <u>work product</u> versions that forks away from the main line (or from another branch) at some point in time. <b>Note:</b> A branch is created by making a copy of some configuration or work product version and making this copy the root of the branch. A branch may be merged with the main line or with another branch at some later point in time.
Burndown chart	Burndown chart	A diagram plotting the work items that remain to accomplish on a time scale.
Cardinalità	Cardinality	<ul> <li>In modeling: <ul> <li>The minimum and maximum number of <u></u>objects in a relationship.</li> </ul> </li> <li>In mathematics: <ul> <li>The number of elements in a set.</li> </ul> </li> <li>Note: <ul> <li>In <u></u>UML, the term multiplicity is used for cardinality.</li> </ul> </li> </ul>
Change Control Board	Change control board	A committee of <u></u> _customer and <u></u> _supplier representatives that decides on <u></u> _change requests. <b>Abbreviation:</b> CCB <b>Note:</b> The Change control board should not be confused with a <i>change advisory</i> <i>board</i> , which is a committee that evaluates change requests for a <u></u> _system in operation and typically has no decision power.
Change management (gestione delle modifiche)	Change management	A controlled way to effect or deny a requested change of a $\underline{\uparrow}$ work product.
Change request	Change request	In RE: A well–argued request for changing one or more $\underline{\uparrow}$ baselined $\underline{\uparrow}$ requirements.
Class diagram	Class diagram	A diagrammatic representation of a $\underline{\uparrow}$ class model.



Termine (Italiano)	Term (English)	Definition
Classe	Class	A representation of a set of $\underline{\uparrow}$ objects of the same kind by describing the structure of the objects, the ways they can be manipulated and how they behave.
Cliente	Customer	A person or organization who receives a $\underline{\uparrow}$ system, a $\underline{\uparrow}$ product or a $\underline{\uparrow}$ service. Also see $\underline{\uparrow}$ stakeholder.
<b>Completezza</b> (dei requisiti)	<b>Completeness</b> (of requirements)	<ul> <li>For a single <u>↑</u>requirement:</li> <li>The degree to which the specification of a requirement is self-contained.</li> <li>For a <u>↑</u>work product covering multiple requirements:</li> <li>The degree to which the work product contains all known requirements that are relevant in the scope of this work product.</li> </ul>
Componente	Component	<ul> <li>In general: <ul> <li>A delimitable part of a ↑system.</li> </ul> </li> <li>In software architecture: <ul> <li>An encapsulated set of coherent ↑objects or ↑classes that jointly achieve some purpose.</li> </ul> </li> <li>In testing: <ul> <li>A part of a ↑system that can be tested in isolation.</li> </ul> </li> <li>Note: When viewed in isolation, a component is a ↑system by itself.</li></ul>
Comportamento	Behavior	The way in which a ∱system reacts to stimuli, changes its state and produces observable results. <b>Note:</b> Stimuli may be events or changes of conditions. Their origin may be external or system-internal.
Composizione (in un contesto tecnico)	Composition (in a technical context)	<ul> <li>An <u>1</u>item that is composed of a set of items; forming a whole-part relationship.</li> <li>The act of composing a whole from a set of parts.</li> </ul>



Termine (Italiano)	Term (English)	Definition
Comprensibilità	Understandability	The degree to which an $\underline{\uparrow}$ item is comprehensible to its intended users. <b>Note:</b> Typical items are: a <u></u> system, a <u></u> work product, or a part thereof.
Comunanza	Commonality	The parts of a $\underline{\uparrow}$ product line that are shared by all its members.
Configurazione	Configuration	A consistent set of logically coherent $\underline{\uparrow}$ items. The items are individually identifiable $\underline{\uparrow}$ work products or parts of work products in at most one $\underline{\uparrow}$ version per item.
Configurazione dei requisiti	Requirements configuration	$\rightarrow$ Configuration
Confine del contesto	Context boundary	The boundary between the <u>_</u> context of a <u>_</u> system and those parts of the <u>_</u> application domain that are irrelevant for the <u>_</u> system and its <u>_</u> requirements. <b>Note:</b> The context boundary separates the relevant part of the environment of a system to be developed from the irrelevant part, i.e., the part that does not influence the system to be developed and, thus, does not have to be considered during Requirements Engineering.
Confini del sistema	System boundary	<ul> <li>The boundary between a fsystem and its surrounding fcontext.</li> <li>Note: <ul> <li>The system boundary delimits the system as it shall be after its implementation and deployment.</li> <li>At the system boundary, the external interfaces between the fsystem and its fcontext have to be defined.</li> <li>The system boundary frequently coincides with the fscope of a fsystem (which denotes the range of things that can be shaped and designed). However, this is not always the case: there may be components within the system boundary that have to be re-used as they are (i.e., cannot be shaped nor designed), while in the system context there may be things that can be re-designed when the system is developed (which means that they are in scope).</li> </ul> </li> </ul>
Conflitto (sui requisiti)	Conflict (about requirements)	$\rightarrow$ Requirements conflict



Termine (Italiano)	Term (English)	Definition
Conflitto di requisiti	Requirements conflict	<ul> <li>A situation where two or more <u>1</u>requirements cannot be satisfied together.</li> <li>A situation where two or more <u>1</u>stakeholders disagree about certain <u>1</u>requirements.</li> </ul>
		Note: Requirements conflicts have to be solved by <u>↑</u> requirements negotiation.
Conformità	Conformity	The degree to which a $\underline{\uparrow}$ work product conforms to regulations given in some $\underline{\uparrow}$ standard.
Conformità, compliance	Compliance	The adherence of a $\underline{\uparrow}$ work product to $\underline{\uparrow}$ standards, conventions, regulations, laws, or similar prescriptions.
<b>Consistenza</b> (dei requisiti)	<b>Consistency</b> (of requirements)	The degree to which a set of $\underline{\uparrow}$ requirements is free of contradicting statements.
Contesto	Context	<ul> <li>In general:         <ul> <li>The network of thoughts and meanings needed for understanding phenomena or utterances.</li> </ul> </li> <li>Especially in RE:         <ul> <li>The part of a ↑system's environment being relevant for understanding the system and its ↑requirements.</li> </ul> </li> <li>Note:         <ul> <li>Context in the second meaning is also called the ↑system context.</li> </ul> </li> </ul>
Contesto di sistema	System context	The part of a $\underline{\uparrow}$ system's environment that is relevant for the definition as well as the understanding of the $\underline{\uparrow}$ requirements of a $\underline{\uparrow}$ system to be developed.
Context diagram	Context diagram	<ul> <li>A diagrammatic representation of a <u>↑</u>context model.</li> <li>In <u>↑</u>Structured Analysis, the context diagram is the root of the <u>↑</u>dataflow diagram hierarchy.</li> </ul>
Control flow (flusso di controllo)	Control flow	The order in which a set of actions is executed.



Termine (Italiano)	Term (English)	Definition
Correttezza	Correctness	The degree to which the information contained in a <u></u> work product is provably true. <b>Note:</b> In RE, correctness is sometimes used as a synonym for <u></u> adequacy, particularly when validating a <u></u> requirement rigorously against formally stated properties in the <u></u> context of a <u></u> system.
Criteri di Accettazione	Acceptance criteria	In agile: Criteria that the implementation of a <u>t</u> user story must satisfy in order to be accepted by the <u>t</u> stakeholders. <b>Note:</b> Acceptance criteria may also be written for <u>t</u> backlog items other than user stories.
Data flow (flusso dati)	Data flow	A sequence of data items flowing from a producer to a consumer.
Data flow diagram	Data flow diagram	A diagrammatic representation of a <u>1</u> data flow model. <b>Abbreviation:</b> DFD
Difetto, baco	Defect	An imperfection or deficiency in a <u>^</u> work product that impairs its intended use. Synonyms: bug, fault
Documento dei requisiti	Requirements document	A document consisting of a <u>↑</u> requirements specification. <b>Note:</b> Requirements document is frequently used as a synonym for requirements specification.
Dominio	Domain	A range of relevant things (for some given matter); for example, an $\underline{\uparrow}$ application domain.
Dominio applicativo	Application domain	Those parts of the real world that are relevant for determining the $\underline{\uparrow}$ context of a $\underline{\uparrow}$ system.



Termine (Italiano)	Term (English)	Definition
Efficacia	Effectiveness	The degree to which an $\underline{\uparrow}$ item produces the intended results. <b>Note:</b> In RE, effectiveness frequently is the degree to which a $\underline{\uparrow}$ system enables its $\underline{\uparrow}$ users to achieve their $\underline{\uparrow}$ goals.
Efficienza	Efficiency	The degree to which resources are expended in relation to results achieved.
Elaborazione (dei requisiti)	Elaboration (of requirements)	An umbrella term for requirements $\underline{\uparrow}$ elicitation, $\underline{\uparrow}$ negotiation and $\underline{\uparrow}$ validation.
Elemento	Item	Anything which is perceivable or conceivable. <b>Synonyms:</b> entity, object
Elicitazione dei requisiti	Requirements elicitation	The process of seeking, capturing and consolidating <u>requirements</u> from available <u>r</u> sources, potentially including the re-construction or creation of requirements.
Elicitazione, Identificazione (dei requisiti)	Elicitation (of requirements)	$\rightarrow$ Requirements elicitation
Entità	Entity	<ul> <li>In general:         <ul> <li>Anything which is perceivable or conceivable (→ item).</li> </ul> </li> <ul> <li>In entity-relationship-modeling:                 <ul> <li>an individual <u>↑</u>item which has an identity and does not depend on another item (→ object).</li> </ul> </li> </ul> </ul>
Entity-relationship diagram (diagramma entità-relazioni)	Entity-relationship diagram	A diagrammatic representation of an $\underline{\uparrow}$ entity-relationship model. <b>Abbreviation:</b> ERD
Epic	Epic	In agile development: An abstract description of a $\underline{\uparrow}$ stakeholder need which is larger than what can be implemented in a single $\underline{\uparrow}$ iteration.



Termine (Italiano)	Term (English)	Definition
Errore	Error	<ul> <li>A human action that produces an incorrect result.</li> <li>A discrepancy between an observed <u>hehavior or result and the specified behavior or result.</u></li> <li>Note:</li> <li>In practice, both meanings are used. Where needed, the meaning of error can be disambiguated by using human error and observed error or observed fault, respectively.</li> </ul>
Fattibilità (di un requisito)	Feasibility (of a requirement)	The degree to which a $\uparrow$ requirement for a $\uparrow$ system can be implemented under existing $\uparrow$ constraints.
Feature diagram	Feature diagram	A diagrammatic representation of a $\underline{\uparrow}$ feature model.
Feature, caratteristica	Feature	<ul> <li>A distinguishing characteristic of a ↑system that provides value for ↑stakeholders.</li> <li>Note:</li> <li>A feature typically comprises several ↑requirements and is used for communicating with ↑stakeholders on a higher level of abstraction and for expressing variable or optional characteristics.</li> </ul>
Fornitore	Supplier	A person or organization who delivers a $\underline{\uparrow}$ product or $\underline{\uparrow}$ service to a $\underline{\uparrow}$ customer.
Funzionalità	Functionality	The capabilities of a $\underline{\uparrow}$ system as stated by its $\underline{\uparrow}$ functional requirements.
Glossario	Glossary	A collection of definitions of terms that are relevant in some ∱domain. <b>Note:</b> Frequently, a glossary also contains cross-references, ∱synonyms, ↑homonyms, acronyms, and abbreviations.
Guasto, difetto	Fault	<u>→</u> Defect



Termine (Italiano)	Term (English)	Definition
<b>Incremento</b> (nello sviluppo software)	<b>Increment</b> (in software development)	An addition to a $\uparrow$ system under development that extends, enhances or refactors ( $\uparrow$ refactoring) the existing parts of the system. <b>Note:</b> In $\uparrow$ agile development, every $\uparrow$ iteration produces an increment.
Ispezione	Inspection	A formal $\underline{\uparrow}$ review of a $\underline{\uparrow}$ work product by a group of experts according to given criteria, following a defined procedure.
Iterazione	Iteration	<ul> <li>In general: <ul> <li>The repetition of something, for example, a procedure, a process or a piece of program code.</li> <li>In agile development: <ul> <li>A ↑ timeboxed unit of work in which a development team implements an ↑ increment to the ↑ system under development.</li> </ul> </li> <li>Note: <ul> <li>In agile development, iteration and ↑ sprint are frequently used as synonyms.</li> </ul> </li> </ul></li></ul>
Linea di prodotto	Product line	<ul> <li>A jointly managed set of systems (provided as products or services) that share a common core and have a configurable set of <u></u>variants for satisfying needs of particular <u></u>customers or market segments.</li> <li>Note:</li> <li>The points in a product line where there is more than one <u></u>variant to select from are called <u></u>variation points.</li> <li>Synonym: Product family</li> </ul>
Linguaggio	Language	A structured set of signs for expressing and communicating information. <b>Note:</b> Signs are any elements that are used for communication: spoken or written words or expressions, symbols, gestures, sounds, etc.
Linguaggio di modellazione	Modeling language	A $\underline{\uparrow}$ language for expressing $\underline{\uparrow}$ models of a certain kind. May be textual, graphic, symbolic or some combination thereof.



Termine (Italiano)	Term (English)	Definition
Linguaggio di specifica	Specification language	An artificial $\underline{\uparrow}$ language that has been created for expressing $\underline{\uparrow}$ specifications.
Linguaggio naturale	Natural language	A <u>1</u> language that people use for speaking and writing in everyday life. <b>Note:</b> This is in contrast to <i>artificial languages</i> that people have deliberately created for specific purposes such as programming or specifying.
Manutenibilità	Maintainability	The ease with which a <u>↑</u> system can be modified by the intended maintainers. <b>Note:</b> Maintainability may be stated as a <u>↑</u> quality requirement.
Megoziazione	Negotiation	$\rightarrow$ Requirements negotiation
Metodo	Method	The systematic application of a $\underline{\uparrow}$ technique (or a set of techniques) to achieve an objective or create a $\underline{\uparrow}$ work product.
Metodologia	Methodology	<ul> <li>The systematic study of <u>1</u>methods in a particular field, in particular, how to select, apply or evaluate methods systematically in a given situation.</li> <li>A set of <u>1</u>methods being applied in some combination.</li> </ul>
<b>Mock-up</b> (di un sistema digitale)	<b>Mock–up</b> (of a digital system)	A medium-fidelity <u>r</u> prototype that demonstrates characteristics of a user interface without implementing any real <u>r</u> functionality. <b>Note:</b> In RE, a mock-up primarily serves for specifying and validating user interfaces.



Termine (Italiano)	Term (English)	Definition
Modello	Model	<ul> <li>An abstract representation of an existing part of reality or a part of reality to be created.</li> <li>Note: <ul> <li>The notion of reality includes any conceivable set of elements, phenomena, or concepts, including other models.</li> <li>Models are always built for <i>specific purposes</i> in a <i>specific context</i>.</li> <li>With respect to a model, the modeled part of reality is called the <i>original</i>.</li> <li>In RE, <u>↑</u>requirements can be specified with models.</li> </ul> </li></ul>
Modello comportamentale	Behavior model	A $\underline{\uparrow}$ model describing the $\underline{\uparrow}$ behavior of a $\underline{\uparrow}$ system, e.g., by a $\underline{\uparrow}$ state machine.
Modello degli obiettivi	Goal model	A <u>model</u> representing a set <u>goals</u> , sub-goals and the relationships between them. <b>Note:</b> Goal models may also include tasks and resources needed to achieve a goal, actors who want to achieve a goal, and obstacles that impede the achievement of a goal.
Modello degli oggetti, object model	Object model	A $\underline{\uparrow}$ model describing a set of $\underline{\uparrow}$ objects and relationships between them.
Modello degli use case, use case model	Use case model	A $\underline{\uparrow}$ model consisting of a set of $\underline{\uparrow}$ use cases, typically together with a $\underline{\uparrow}$ use case diagram.
Modello dei requisiti	Requirements model	A $\underline{\uparrow}$ model that has been created with the purpose of specifying $\underline{\uparrow}$ requirements.
Modello del contesto, context model	Context model	A $\underline{\uparrow}$ model describing a $\underline{\uparrow}$ system in its $\underline{\uparrow}$ context.



Termine (Italiano)	Term (English)	Definition
Modello del data flow, data flow model	Data flow model	A model that describes the functionality of a system by factivities, data stores and data flows. <b>Note:</b> Incoming data flows trigger activities which then consume the received data, transform them, read/write persistent data held in data stores and then produce new data flows which may be intermediate results that trigger other activities or final results that leave the system.
Modello del dominio	Domain model	<ul> <li>A ↑model describing phenomena in an ↑application domain.</li> <li>Note:</li> <li>In RE, domain models are created with the intention to understand the ↑application domain in which a planned ↑system will be situated.</li> <li>Static domain models specify (business) objects and their relationships in a ↑domain of interest.</li> <li>Domain story models specify visual stories about how actors interact with devices, artifacts, and other items in a ↑domain.</li> </ul>
Modello del modulo	Form template	<ul> <li>A template providing a form with predefined fields to be filled-in.</li> <li>(→ requirements template)</li> <li>Note:</li> <li>In RE, form templates can be used to specify <u>^</u>use cases or <u>^</u>quality requirements.</li> </ul>
Modello del processo	Process model	A $\underline{\uparrow}$ model describing a $\underline{\uparrow}$ process or a set of related processes.
Modello delle attività, activity model	Activity model	A $\underline{\uparrow}$ model of the flow of actions in some part of a $\underline{\uparrow}$ system.
Modello delle classi, class model	Class model	A model consisting of a set of $\underline{\uparrow}$ classes and relationships between them.
Modello delle feature, feature model	Feature model	A $\underline{\uparrow}$ model describing the variable features of a $\underline{\uparrow}$ product line, including their relationships and dependencies.



Termine (Italiano)	Term (English)	Definition
Modello entità-relazioni, entity- relationship model	Entity-relationship model	A <u>model</u> of data that are relevant for a <u>system</u> or of the data of an <u>application</u> domain, consisting of a set of entity types that are each characterized by <u>attributes</u> and linked by relationships. <b>Abbreviation:</b> ER Model
Modificabilità	Changeability	$\rightarrow$ Modifiability
Modificabilità	Modifiability	The degree to which a $\underline{\uparrow}$ work product or $\underline{\uparrow}$ system can be modified without degrading its $\underline{\uparrow}$ quality.
Molteplicità	Multiplicity	$\rightarrow$ Cardinality
Necessità (di un requisito)	Necessity (of a requirement)	The degree to which an individual $\underline{\uparrow}$ requirement is a necessary part of the $\underline{\uparrow}$ requirements specification of a $\underline{\uparrow}$ system.
Negoziazione dei requisiti	Requirements negotiation	A $\underline{\uparrow}$ process where $\underline{\uparrow}$ stakeholders are working toward reaching an agreement to resolve $\underline{\uparrow}$ requirements conflicts.
Non ambiguità (dei requisiti)	<b>Unambiguity</b> (of requirements)	The degree to which a <u>requirement is expressed such that it cannot be</u> understood differently by different people.
Obiettivo	Goal	A desired state of affairs (that a <u>↑</u> stakeholder wants to achieve). <b>Note:</b> Goals describe intentions of stakeholders. They may conflict with one another.
Object diagram	Object diagram	A diagrammatic representation of an $\underline{\uparrow}$ object model.
Oggetto	Object	<ul> <li>In general:         <ul> <li>Anything which is perceivable or conceivable (→ item).</li> </ul> <ul> <li>In software engineering:                 <ul> <li>an individual <u>↑</u>item which has an identity, is characterized by the values of its <u>↑</u>attributes and does not depend on another item (→</li> </ul> </li> </ul> </li> </ul>

entity).



Termine (Italiano)	Term (English)	Definition
Omonimo	Homonym	A term looking identical to another term but having a different meaning. <b>Note:</b> For example, bill as a bank note and bill as a list (of materials) are homonyms.
Pattern di processo (template di processo)	Process pattern	An abstract, reusable $\underline{\uparrow}$ model of a $\underline{\uparrow}$ process which can be used to configure and instantiate a concrete process for a given situation and $\underline{\uparrow}$ context.
Persona	Persona	A fictitious character representing a group of $\underline{\uparrow}$ users with similar needs, values and habits who are expected to use a $\underline{\uparrow}$ system in a similar way.
Portabilità	Portability	The ease with which a $\underline{\uparrow}$ system can be transferred to another platform while preserving its characteristics.
Pratica, prassi	Practice	A proven way of how to carry out certain types of $\underline{\uparrow}$ tasks or $\underline{\uparrow}$ activities.
Priorità	Priority	The level of importance assigned to an $\underline{\uparrow}$ item, e.g., a $\underline{\uparrow}$ requirement or a $\underline{\uparrow}$ defect, according to certain criteria.
Prioritizzazione	Prioritization	The process of assigning priorities to a set of $\underline{\uparrow}$ items.
Problema	Problem	A difficulty, open question or undesirable condition that needs investigation, consideration, or solution.
Processo	Process	A set of interrelated <u>_</u> activities performed in a given order to process information or materials. <b>Note:</b> The notion of process includes <i>business processes</i> (e.g., how to commission and send ordered goods to <u>_</u> customers), <i>information processes</i> (e.g., how to deliver records from a database that match a given query), and <i>technical</i> <i>processes</i> (e.g., cruise control in a car).
<b>Prodotto</b> (nel contesto software)	<b>Product</b> (in the context of software)	A software-based $\underline{\uparrow}$ system or a $\underline{\uparrow}$ service provided by a system which is developed and marketed by a $\underline{\uparrow}$ supplier and used by $\underline{\uparrow}$ customers.



Termine (Italiano)Term (English)DefinitionProdotto di lavoroWork productA recorded, intermediate or final result gene Synonym: ^ArtifactProduct backlogProduct backlogAn ordered, typically prioritized collection or development team has to work on when dev Note: Items include ^requirements, ^defects to be done.Product ownerProduct ownerA person responsible for a ^product in term ^risk. Note: The product owner maintains and prioritized	
Synonym: ^Artifact         Product backlog       Product backlog       An ordered, typically prioritized collection of development team has to work on when development team has to work on team has to work on when development team ha	
development team has to work on when development team	rated in a work $\underline{\uparrow}$ process.
⊥risk. <b>Note:</b>	eloping or evolving a $ m 1$ system.
sure that the $\underline{1}$ stakeholders' $\underline{1}$ requirements elicited and adequately documented in the represents the stakeholders when communi- team.	the <u>1</u> product backlog, makes as well as market needs are product backlog and
Progettazione       Design       • A plan or drawing produced to show how or be structured before it is made.         • The activity of creating a design.       • The activity of creating a design.         • A decorative pattern [This meaning doe engineering 1 domain].         • Note:         • In software product development, we dates of the design which shapes the look and feel of perceivable form, function and quality, called software design) which determine product, in particular the software arch         • The creative design of products is also of the creative design of digital solutions is	s not apply in the software stinguish between <i>creative</i> the product, i.e., its and <i>technical design</i> (also es the inner structure of the tecture. called <i>product design</i> .
Prototipizzazione Prototyping A _process that involves the creation and e	



Termine (Italiano)	Term (English)	Definition
Prototipo	Prototype	<ul> <li>In manufacturing: <ul> <li>A piece which is built prior to the start of mass production.</li> </ul> </li> <li>In software and systems engineering: <ul> <li>A preliminary, partial realization of certain characteristics of a fsystem.</li> </ul> </li> <li>In design: <ul> <li>A preliminary, partial instance of a design solution.</li> </ul> </li> <li>Note: <ul> <li>In RE, prototypes are used as a means for requirements felicitation (see fspecification by example) and fvalidation.</li> <li>Prototypes in RE can be classified <ul> <li>with respect to their degree of fidelity into fnative prototypes, fmock-ups and fwireframes;</li> <li>with respect to their purpose into fexploratory prototypes and fevolutionary prototypes.</li> </ul> </li> </ul></li></ul>
Prototipo esplorativo	Exploratory prototype	A throwaway $\Upsilon$ prototype used to create shared understanding, clarify $\Upsilon$ requirements or validate requirements.
Prototipo evolutivo	Evolutionary prototype	A pilot system forming the core of a $\underline{\uparrow}$ system to be developed.
Prototipo nativo	Native prototype	A high-fidelity $\uparrow$ prototype that implements critical parts of a $\uparrow$ system to an extent that $\uparrow$ stakeholders can use the prototype to see whether the prototyped part of the system will work and behave as expected.
Punto di variazione	Variation point	A point in a $\uparrow$ product line where an element of the product line (typically a variable or a $\uparrow$ feature) can be chosen from a set of $\uparrow$ variants.
Punto di vista	Viewpoint	A certain perspective on the <u>↑</u> requirements of a <u>↑</u> system. <b>Note:</b> Typical viewpoints are perspectives that a <u>↑</u> stakeholder or stakeholder group has (for example, an end user's perspective or an operator's perspective). However, there can also be topical viewpoints such as a security viewpoint.



Termine (Italiano)	Term (English)	Definition
Qualità	Quality	<ul> <li>In general: <ul> <li>The degree to which a set of inherent characteristics of an item fulfills <u>↑</u>requirements.</li> </ul> </li> <li>In systems and software engineering: <ul> <li>The degree to which a <u>↑</u>system satisfies stated and implied needs of its <u>↑</u>stakeholders.</li> </ul> </li> </ul>
		Quality in this definition means fitness for intended use, as stated in the ↑requirements. This is in contrast to the colloquial notion of quality which is typically connoted with goodness or excellence.
Refactoring	Refactoring	The improvement of the internal $\underline{\uparrow}$ quality of source code, particularly the structure of the code, without changing its observable behavior.
Requirements Engineer (Ingegnere dei Requisiti)	Requirements Engineer	A person who – in collaboration with $\uparrow$ stakeholders – elicits, documents, validates, and manages $\uparrow$ requirements. <b>Note:</b> In most cases, requirements engineer is a $\uparrow$ role and not a job title.
Requirements Engineering (Ingegneria dei Requisiti)	Requirements Engineering	The systematic and disciplined approach to the <u>_</u> specification and management of <u>_</u> requirements with the goal of understanding the <u>_</u> stakeholders' desires and needs and minimizing the risk of delivering a <u>_</u> system that does not meet these desires and needs. <b>Abbreviation:</b> RE
Requirements management (Gestione dei requisiti)	Requirements management	The process of managing existing $\underline{\uparrow}$ requirements and requirements- related $\underline{\uparrow}$ work products, including the storing, changing and tracing of requirements ( $\underline{\uparrow}$ traceability).
Requisito	Requirement	<ul> <li>A need perceived by a <u>stakeholder</u>.</li> <li>A capability or property that a <u>system shall have</u>.</li> <li>A documented representation of a need, capability or property.</li> </ul>



Termine (Italiano)	Term (English)	Definition
Requisito degli stakeholder	Stakeholder requirement	A <u>requirement expressing a </u> stakeholder desire or need. <b>Note:</b> Stakeholder requirements are typically written by stakeholders and express their desires and needs from their perspective.
Requisito di business	Business requirement	A <u>requirement stating a business <u>goal</u>, objective or need of an organization. <b>Note:</b> Business requirements typically state those business goals, objectives and needs that shall be achieved by employing a <u>system or a collection of systems</u>.</u>
Requisito di dominio	Domain requirement	A $\underline{\uparrow}$ domain property in the $\underline{\uparrow}$ context of a $\underline{\uparrow}$ system that is required to hold.
Requisito di qualità	Quality requirement	A $\underline{\uparrow}$ requirement that pertains to a quality concern that is not covered by $\underline{\uparrow}$ functional requirements.
Requisito di sistema	System requirement	A $\underline{\uparrow}$ requirement pertaining to a $\underline{\uparrow}$ system.
Requisito di sistema	User requirement	A <u>↑</u> requirement expressing a <u>↑</u> user need. <b>Note:</b> User requirements are typically about what a system should do for certain users and how they can interact with the system. User requirements are a subset of <u>↑</u> stakeholder requirements.
Requisito funzionale	Functional requirement	A $\underline{\uparrow}$ requirement concerning a result or $\underline{\uparrow}$ behavior that shall be provided by a function of a $\underline{\uparrow}$ system.
Requisito non-funzionale	Non-functional requirement	<ul> <li>A ↑quality requirement or a ↑constraint.</li> <li>Note:</li> <li>↑Performance requirements may be regarded as another category of non-functional requirements. In this glossary, performance requirements are considered to be a sub-category of ↑quality requirements.</li> </ul>



Termine (Italiano)	Term (English)	Definition
Requisito relativo alle prestazioni	Performance requirement	<ul> <li>A <u>↑</u>requirement describing a performance characteristic (timing, speed, volume, capacity, throughput,).</li> <li>Note:</li> <li>In this glossary, performance requirements are regarded as a sub-category of <u>↑</u>quality requirements. However, they can also be considered as a <u>↑</u>kind of requirements of its own.</li> </ul>
Review	Review	An evaluation of a <u>^</u> work product by an individual or a group in order to find problems or suggest improvements. <b>Note:</b> Evaluation may be performed with respect to both contents and conformance.
Ridondanza	Redundancy	Multiple occurrence of the same information or resource.
Rilascio	Release	A $\underline{\uparrow}$ configuration that has been released for installation and use by $\underline{\uparrow}$ customers.
Rischio	Risk	A possible event that threatens the success of an endeavor. <b>Note:</b> A risk is typically assessed in terms of its probability and potential damage.
Ruolo	Role	<ul> <li>In general:</li> <li>A part played by a person in a given context.</li> <li>In <u>1</u>UML <u>1</u>class models:</li> <li>The parts played by the linked <u>1</u>objects in an <u>1</u>association.</li> </ul>
Safety	Safety	The capability of a <u>↑</u> system to achieve an acceptable level of probability that the system, under defined conditions, will not reach a state in which human life, health, property, or the environment is endangered. <b>Note:</b> Safety <u>↑</u> requirements may be stated as <u>↑</u> quality requirements or in terms of <u>↑</u> functional requirements.



Termine (Italiano)	Term (English)	Definition
Scenario	Scenario	<ul> <li>In general:         <ul> <li>A description of a potential sequence of events that lead to a desired (or unwanted) result.</li> </ul> </li> <li>In RE:         <ul> <li>An ordered sequence of interactions between partners, in particular between a <u>↑</u>system and external <u>↑</u>actors. May be a concrete sequence (instance scenario) or a set of potential sequences (type scenario, <u>↑</u>use case).</li> </ul> </li> </ul>
Scoperta di requisiti	Requirements discovery	$\rightarrow$ Requirements elicitation
Scrum	Scrum	A popular $\underline{\uparrow}$ process framework for $\underline{\uparrow}$ agile development of a $\underline{\uparrow}$ system.
Semantica	Semantics	The meaning of a sign or a set of signs in a $\underline{\uparrow}$ language.
Semi-formale	Semi-formal	Something which is formal to some extent, but not completely. <b>Note:</b> A <u>^</u> work product is called semi-formal if it contains formal parts, but isn't formalized totally. Typically, a semi-formal work product has a defined <u>^</u> syntax, while the <u>^</u> semantics is partially defined only.
Sequence diagram	Sequence diagram	A diagram type in $\Upsilon$ UML which models the interactions between a selected set of $\Upsilon$ objects and/or $\Upsilon$ actors in the sequential order in which those interactions occur.
Servizio	Service	The provision of some functionality to a human or a fsystem by a provider (a system, organization, group or individual) that delivers value to the receiver. <b>Note:</b> In systems engineering, software engineering and Requirements Engineering, services are typically provided by a fsystem for a fuser or another system.



Termine (Italiano)	Term (English)	Definition
Sicurezza	Security	The degree to which a <u>↑</u> system protects its data and resources against unauthorized access or use and secures unobstructed access and use for its legitimate <u>↑</u> users. <b>Note:</b> Security requirements may be stated as <u>↑</u> quality requirements or in terms of <u>↑</u> functional requirements.
Sinonimo	Synonym	A word having the same meaning as another word.
Sintassi	Syntax	The rules for constructing structured signs in a $ m 1$ language.
Sistema	System	<ul> <li>In general: <ul> <li>A principle for ordering and structuring.</li> </ul> </li> <li>In engineering: <ul> <li>A coherent, delimitable set of elements that – by coordinated action – achieve some purpose.</li> </ul> </li> <li>Note: <ul> <li>A system may comprise other systems or 1 components as subsystems.</li> <li>The purposes achieved by a system may be delivered by <ul> <li>deploying the system at the place(s) where it is used,</li> <li>selling/providing the system as a 1 product to its 1 users,</li> <li>having providers who offer the system's capabilities as 1 services to users.</li> </ul> </li> <li>Systems containing both software and physical 1 components are called <i>cyber-physical systems</i>.</li> <li>Systems spanning software, hardware, people and organizational aspects are called <i>socio-technical systems</i>.</li> </ul> </li> <li>Important: In all definitions referring to system in this glossary, system is an umbrella term which includes <ul> <li><i>Products</i> provided to 1 customers,</li> <li><i>Services</i> made available to 1 customers,</li> <li>Other work products such as <i>devices</i>, <i>procedures</i> or <i>tools</i> that help people or organizations achieve some goal,</li> </ul></li></ul>



Termine (Italiano)	Term (English)	Definition
Sorgente (di un requisito)	Source (of a requirement)	$\rightarrow$ Requirements source
Sorgente dei requisiti	Requirements source	The source from which a <u>requirement has been derived</u> . <b>Note:</b> Typical sources are <u>stakeholders</u> , documents, existing <u>systems</u> and observations.
Specifica	Specification	<ul> <li>As a work product: <ul> <li>A systematically represented description of the properties of an <u>1</u>item (a <u>1</u>system, a device, etc.) that satisfies given criteria.</li> </ul> </li> <li>As a process: <ul> <li>the process of specifying (<u>1</u>eliciting, documenting and <u>1</u>validating) the properties of an <u>1</u>item.</li> </ul> </li> <li>Note: <ul> <li>A specification may be about required properties (<u>1</u>requirements specification) or implemented properties (e.g., a technical product specification).</li> </ul> </li> </ul>
Specifica dei requisiti	Requirements specification	<ul> <li>A systematically represented collection of ↑requirements, typically for a ↑system, that satisfies given criteria.</li> <li>Note: <ul> <li>In some situations we distinguish between a ↑customer requirements specification (typically written by the ↑customer) and a ↑system requirements specification or ↑software requirements specification (written by the supplier).</li> <li>Requirements specification may also denote the ↑process of specifying (↑eliciting, documenting and ↑validating) requirements.</li> </ul> </li> </ul>
Specifica dei requisiti del cliente	Customer requirements specification	A coarse description of the required capabilities of a <u></u> system from the <u></u> customer's perspective. <b>Note:</b> A customer requirements specification is usually supplied by the <u></u> customer.



Termine (Italiano)	Term (English)	Definition
Specifica dei requisiti di sistema	System requirements specification	A <u>↑</u> requirements specification pertaining to a <u>↑</u> system. <b>Note:</b> A system requirements specification is frequently considered to be a synonym for <u>↑</u> requirements specification. <b>Abbreviation:</b> SyRS
Specifica dei requisiti software	Software requirements specification	A $\underline{\uparrow}$ requirements specification pertaining to a software $\underline{\uparrow}$ system. <b>Abbreviation:</b> SRS
Specifica per esempi	Specification by example	A $\underline{\uparrow}$ technique that specifies test cases and $\underline{\uparrow}$ requirements for a $\underline{\uparrow}$ system by providing examples of how the system should behave.
Spike	Spike	In agile development: A task aimed at gaining insight or gathering information, rather than at producing a $\underline{\uparrow}$ product $\underline{\uparrow}$ increment.
Sprint	Sprint	An $\underline{\uparrow}$ iteration in $\underline{\uparrow}$ agile development, particularly when using $\underline{\uparrow}$ Scrum.
Sprint backlog	Sprint backlog	A set of $\underline{\uparrow}$ product backlog items that have been selected to be implemented in the current $\underline{\uparrow}$ sprint.
Stakeholder	Stakeholder	A person or organization who influences a <u>^</u> system's <u>^</u> requirements or who is impacted by that system. <b>Note:</b> Influence can also be indirect. For example, some stakeholders may have to follow instructions issued by their managers or organizations.
Standard	Standard	A formal, possibly mandatory set of regulations for how to interpret, develop, manufacture, or execute something. <b>Note:</b> In RE, there are RE-relevant standards issued by ISO/IEC and IEEE.
State machine	State machine	A $\underline{\uparrow}$ model describing the behavior of a $\underline{\uparrow}$ system by a finite set of <i>states</i> and state <i>transitions</i> . State transitions are triggered by <i>events</i> and can in turn trigger <i>actions</i> and new events.
State machine diagram	State machine diagram	A diagrammatic representation of a $\underline{\uparrow}$ state machine.



Termine (Italiano)	Term (English)	Definition
Statechart	Statechart	A <u>state</u> machine having states that are hierarchically and/or orthogonally decomposed.
State-transition diagram	State-transition diagram	$\rightarrow$ State machine diagram.
Steering commitee	Steering committee	A committee that supervises a project.
Story (in un contesto di RE)	Story (in an RE context)	$\rightarrow$ User story
Story map	Story map	A two-dimensional arrangement of <u>↑</u> user stories. <b>Note:</b> A story map helps understand the <u>↑</u> functionality of a <u>↑</u> system, identify gaps and plan releases.
Storyboard	Storyboard	A series of sketches or pictures that visualize the execution of a $\underline{\uparrow}$ scenario.
Strumento (in software engineering)	<b>Tool</b> (in software engineering)	A (software) $\uparrow$ system that helps develop, operate and maintain systems. <b>Note:</b> In RE, tools support $\uparrow$ requirements management as well as modeling, documenting, and validating $\uparrow$ requirements.
Suddivisione dei requisiti,	Requirements branching	
branch dei requisiti	Requirements branching	→ Branch
• •	Decision table	<ul> <li>→ Branch</li> <li>A tabular representation of a complex decision, specifying which actions to perform for the possible combinations of condition values.</li> </ul>
branch dei requisiti		A tabular representation of a complex decision, specifying which actions to
branch dei requisiti Tabella delle decisioni	Decision table	A tabular representation of a complex decision, specifying which actions to perform for the possible combinations of condition values. A documented set of coherent actions for accomplishing a <u>^</u> task or



Termine (Italiano)	Term (English)	Definition
Template dei requisiti	Requirements template	A template for specifying <u>requirements</u> . <b>Note:</b> In RE, several forms of templates are used. <u>Phrase templates</u> are used for specifying individual <u>requirements</u> or <u>requirements</u> . <u>Form templates</u> can be used to specify <u>ruse</u> cases or <u>requality</u> requirements. <u>Document</u> <i>templates</i> provide a predefined structure for <u>requirements</u> documents.
Template del documento	Document template	<ul> <li>A template providing a predefined skeleton structure for a document. (→ requirements template)</li> <li>Note:</li> <li>In RE, document templates can be used to structure <u>1</u>requirements documents.</li> </ul>
Template della frase	Phrase template	A template for the syntactic structure of a phrase that expresses an individual $\underline{\uparrow}$ requirement or a $\underline{\uparrow}$ user story in $\underline{\uparrow}$ natural language. ( $\underline{\rightarrow}$ requirements template)
Test di Accettazione	Acceptance test	A test that assesses whether a <u>system</u> satisfies its <u>requirements</u> . <b>Note:</b> Typically used by <u>customers</u> to determine whether or not to accept a system.
Timebox	Timebox	A fixed, non-extendable amount of time for completing a set of $\underline{\uparrow}$ tasks.
Tipo di requisito	Kind of requirement	<ul> <li>A classification of requirements according to their kind into <u>↑</u>system requirements (consisting of <u>↑</u>functional requirements, <u>↑</u>quality requirements and <u>↑</u>constraints), project requirements, and process requirements.</li> <li>Note: <ul> <li>RE is primarily concerned with system requirements.</li> <li>Quality requirements and constraints are also called <u>↑</u>non-functional requirements.</li> </ul> </li> </ul>



Termine (Italiano)	Term (English)	Definition
Tolleranza ai guasti	Fault tolerance	The capability of a <u>↑</u> system to operate as intended despite the presence of (hardware or software) <u>↑</u> faults. <b>Note:</b> Fault tolerance may be stated as a <u>↑</u> quality requirement.
Tracciabilità	Traceability	<ul> <li>In general:</li> <li>The ability to establish explicit relationships between related <u>^</u>work products or <u>^</u>items within work products.</li> <li>In RE:</li> <li>The ability to trace a <u>^</u>requirement</li> <li>back to its origins,</li> <li>forward to its implementation in design and code and its associated tests,</li> <li>to requirements it depends on (and vice-versa).</li> </ul>
UML	UML	Abbreviation for Unified Modeling Language, a standardized language for modeling problems or solutions.
Usabilità	Usability	<ul> <li>The degree to which a <u></u>system can be used by specified <u></u>users to achieve specified <u></u>goals in a specified context of use.</li> <li>Note:</li> <li>Usability particularly includes the capability of a <u></u>system to be understood, learned, used, and liked by its intended <u></u>users.</li> </ul>
Use case	Use case	<ul> <li>A set of possible interactions between external ↑actors and a ↑system that provide a benefit for the actor(s) involved.</li> <li>Note:</li> <li>Use cases specify a system from a user's (or other external actor's) perspective: every use case describes some ↑functionality that the system must provide for the actors involved in the use case.</li> </ul>



Termine (Italiano)	Term (English)	Definition
Use case diagram	Use case diagram	<ul> <li>A diagram type in <u>↑</u>UML that models the <u>↑</u>actors and the <u>↑</u>use cases of a <u>↑</u>system.</li> <li>Note:</li> <li>The boundary between the actors and the use cases constitutes the <u>↑</u>system boundary.</li> </ul>
User story	User story	<ul> <li>A description of a need from a ⊥user's perspective together with the expected benefit when this need is satisfied.</li> <li>Note:</li> <li>User stories are typically written in ↑natural language using a ↑phrase template and are accompanied by ↑acceptance criteria.</li> <li>In ↑agile development, user stories are the main means for communicating needs between a ↑product owner and the development team.</li> </ul>
Utente	User	A person who uses the ↑functionality provided by a ↑system. Note: Users (also called end users) always are ↑stakeholders of a ↑system.
Utente finale	End user	→User
Validazione	Validation	The <u>_</u> process of confirming that an <u>_</u> item (a <u>_</u> system, a <u>_</u> work product or a part thereof) matches its <u>_</u> stakeholders' needs. <b>Note:</b> In RE, validation is the process of confirming that the documented <u>_</u> requirements match their <u>_</u> stakeholders' needs; in other words: whether the right requirements have been specified.
Variabilità	Variability	<ul> <li>The degree to which a <u>↑</u>system can be changed or customized.</li> <li>In product lines: The <u>↑</u>features that can differ among the members of the <u>↑</u>product line.</li> </ul>
Variante	Variant	One of the possible forms that an $\underline{\uparrow}$ item (e.g., a <u></u> requirement) may have.



Termine (Italiano)	Term (English)	Definition
Verifica	Verification	The process of confirming that an <u>item</u> (a system, a work product, or a part thereof) fulfills its <u>ispecification</u> . <b>Note:</b> Requirements verification is the process of confirming that the <u>irequirements</u> have been documented properly and satisfy the <u>i</u> quality criteria for requirements; in other words, whether the requirements have been specified right.
Verificabilità (dei requisiti)	<b>Verifiability</b> (of requirements)	The degree to which the fulfillment of a <u>requirement by an implemented</u> <u>system can be verified.</u> <b>Note:</b> Such <u>rerification can be performed, for example, by defining</u> <u>racceptance test cases, measurements or <u>rinspection procedures.</u></u>
Versione	Version	An occurrence of an <u>1</u> item which exists in multiple, time-ordered occurrences where each occurrence has been created by modifying one of its previous occurrences.
Vincolo (in RE)	<b>Constraint</b> (in RE)	A $\underline{\uparrow}$ requirement that limits the solution space beyond what is necessary for meeting the given $\underline{\uparrow}$ functional requirements and $\underline{\uparrow}$ quality requirements.
<b>Vision</b> (per un sistema o prodotto)	Vision (for a system or product)	A conceptual imagination of a future $\underline{\uparrow}$ system or $\underline{\uparrow}$ product, describing its key characteristics and how it will create value for its $\underline{\uparrow}$ users.
Vista	View	<ul> <li>An excerpt from a <u>↑</u>work product, containing only those parts one is currently interested in.</li> <li>Note:</li> <li>A view can abstract or aggregate parts of the work product.</li> </ul>
Walkthrough	Walkthrough	A $\underline{\uparrow}$ review in which the author of a $\underline{\uparrow}$ work product leads the reviewers systematically through the work product and the reviewers ask questions and make comments about possible issues.



Termine (Italiano)	Term (English)	Definition
Wireframe	Wireframe	A low-fidelity <u>prototype built with simple materials that primarily serves</u> for discussing and validating requirements, design ideas or user interface concepts. <b>Note:</b> When prototyping digital systems, wireframes are typically built with paper. Such prototypes are also called <i>paper prototypes</i> .



## 2 Englisch - Italiano Dictionary

Term (English)	Termine (Italiano)
Acceptance	Accettazione
Acceptance criteria	Criteri di Accettazione
Acceptance test	Test di Accettazione
Activity	Attività
Activity diagram	Activity diagram
Activity model	Modello delle attività, activity model
Actor	Attore
Adequacy (of a requirement)	Adeguatezza (di un requisito)
Agile	Agile
Ambiguity	Ambiguità
Application domain	Dominio applicativo
Artifact	Artefatto
Association	Associazione
Attribute	Attributo



Term (English)	Termine (Italiano)
Backlog	Backlog
Baseline	Baseline
Behavior	Comportamento
Behavior model	Modello comportamentale
Branch	Branch, ramo
Bug	Baco
Burndown chart	Burndown chart
Business requirement	Requisito di business
Cardinality	Cardinalità
Change control board	Change Control Board
Change management	Change management (gestione delle modifiche)
Change request	Change request
Changeability	Modificabilità
Class	Classe
Class diagram	Class diagram



Term (English)	Termine (Italiano)
Class model	Modello delle classi, class model
Commonality	Comunanza
Completeness (of requirements)	Completezza (dei requisiti)
Compliance	Conformità, compliance
Component	Componente
Composition (in a technical context)	Composizione (in un contesto tecnico)
Configuration	Configurazione
Conflict (about requirements)	Conflitto (sui requisiti)
Conformity	Conformità
Consistency (of requirements)	Consistenza (dei requisiti)
Constraint (in RE)	Vincolo (in RE)
Context	Contesto
Context boundary	Confine del contesto
Context diagram	Context diagram
Context model	Modello del contesto, context model



Term (English)	Termine (Italiano)
Control flow	Control flow (flusso di controllo)
Correctness	Correttezza
Customer	Cliente
Customer requirements specification	Specifica dei requisiti del cliente
Data flow	Data flow (flusso dati)
Data flow diagram	Data flow diagram
Data flow model	Modello del data flow, data flow model
Decision table	Tabella delle decisioni
Defect	Difetto, baco
Design	Progettazione
Document template	Template del documento
Domain	Dominio
Domain model	Modello del dominio
Domain requirement	Requisito di dominio
Effectiveness	Efficacia



Term (English)	Termine (Italiano)
Efficiency	Efficienza
Elaboration (of requirements)	Elaborazione (dei requisiti)
Elicitation (of requirements)	Elicitazione, Identificazione (dei requisiti)
End user	Utente finale
Entity	Entità
Entity-relationship diagram	Entity-relationship diagram (diagramma entità-relazioni)
Entity-relationship model	Modello entità-relazioni, entity-relationship model
Epic	Epic
Error	Errore
Evolutionary prototype	Prototipo evolutivo
Exploratory prototype	Prototipo esplorativo
Fault	Guasto, difetto
Fault tolerance	Tolleranza ai guasti
Fault tolerance Feasibility (of a requirement)	<b>Tolleranza ai guasti</b> Fattibilità (di un requisito)



Term (English)	Termine (Italiano)
Feature diagram	Feature diagram
Feature model	Modello delle feature, feature model
Form template	Modello del modulo
Functional requirement	Requisito funzionale
Functionality	Funzionalità
Glossary	Glossario
Goal	Obiettivo
Goal model	Modello degli obiettivi
Homonym	Omonimo
Increment (in software development)	Incremento (nello sviluppo software)
Inspection	Ispezione
Item	Elemento
Iteration	Iterazione
Kind of requirement	Tipo di requisito
Language	Linguaggio



Term (English)	Termine (Italiano)
Maintainability	Manutenibilità
Method	Metodo
Methodology	Metodologia
Mock-up (of a digital system)	Mock–up (di un sistema digitale)
Model	Modello
Modeling language	Linguaggio di modellazione
Modifiability	Modificabilità
Multiplicity	Molteplicità
Native prototype	Prototipo nativo
Natural language	Linguaggio naturale
Necessity (of a requirement)	Necessità (di un requisito)
Negotiation	Megoziazione
Non-functional requirement	Requisito non-funzionale
Object	Oggetto
Object diagram	Object diagram



Term (English)	Termine (Italiano)
Object model	Modello degli oggetti, object model
Performance requirement	Requisito relativo alle prestazioni
Persona	Persona
Phrase template	Template della frase
Portability	Portabilità
Practice	Pratica, prassi
Prioritization	Prioritizzazione
Priority	Priorità
Problem	Problema
Problem Process	Problema Processo
Process	Processo
Process Process model	Processo Modello del processo
Process         Process model         Process pattern	Processo         Modello del processo         Pattern di processo (template di processo)



Term (English)	Termine (Italiano)
Product owner	Product owner
Prototype	Prototipo
Prototyping	Prototipizzazione
Quality	Qualità
Quality requirement	Requisito di qualità
Redundancy	Ridondanza
Refactoring	Refactoring
Release	Rilascio
Reliability	Affidabilità
Requirement	Requisito
Requirements analysis	Analisi dei requisiti
Requirements baseline	Baseline dei requisiti
Requirements branching	Suddivisione dei requisiti, branch dei requisiti
Requirements configuration	Configurazione dei requisiti
Requirements conflict	Conflitto di requisiti



Term (English)	Termine (Italiano)
Requirements discovery	Scoperta di requisiti
Requirements document	Documento dei requisiti
Requirements elicitation	Elicitazione dei requisiti
Requirements Engineer	Requirements Engineer (Ingegnere dei Requisiti)
Requirements Engineering	Requirements Engineering (Ingegneria dei Requisiti)
Requirements management	Requirements management (Gestione dei requisiti)
Requirements model	Modello dei requisiti
Requirements negotiation	Negoziazione dei requisiti
Requirements source	Sorgente dei requisiti
Requirements specification	Specifica dei requisiti
Requirements template	Template dei requisiti
Review	Review
Risk	Rischio
Role	Ruolo
Safety	Safety



Term (English)	Termine (Italiano)
Scenario	Scenario
Scope (of a system development)	Ambito (dello sviluppo di un sistema)
Scrum	Scrum
Security	Sicurezza
Semantics	Semantica
Semi-formal	Semi-formale
Sequence diagram	Sequence diagram
Service	Servizio
Software requirements specification	Specifica dei requisiti software
Source (of a requirement)	Sorgente (di un requisito)
Specification	Specifica
Specification by example	Specifica per esempi
Specification language	Linguaggio di specifica
Spike	Spike
Sprint	Sprint



Term (English)	Termine (Italiano)
Sprint backlog	Sprint backlog
Stakeholder	Stakeholder
Stakeholder requirement	Requisito degli stakeholder
Standard	Standard
State machine	State machine
State machine diagram	State machine diagram
Statechart	Statechart
State-transition diagram	State-transition diagram
Steering committee	Steering commitee
Story (in an RE context)	Story (in un contesto di RE)
Story map	Story map
Storyboard	Storyboard
Structured Analysis	Analisi strutturata
Supplier	Fornitore
Synonym	Sinonimo



Term (English)	Termine (Italiano)
Syntax	Sintassi
System	Sistema
System boundary	Confini del sistema
System context	Contesto di sistema
System requirement	Requisito di sistema
System requirements specification	Specifica dei requisiti di sistema
Task	Attività
Technique	Tecnica
Theme	Tema
Timebox	Timebox
Tool (in software engineering)	Strumento (in software engineering)
Traceability	Tracciabilità
UML	UML
Unambiguity (of requirements)	Non ambiguità (dei requisiti)
Understandability	Comprensibilità



Term (English)	Termine (Italiano)
Usability	Usabilità
Use case	Use case
Use case diagram	Use case diagram
Use case model	Modello degli use case, use case model
User	Utente
User requirement	Requisito di sistema
User story	User story
Validation	Validazione
Validation Variability	<b>Validazione</b> Variabilità
Variability	Variabilità
Variability Variant	Variabilità Variante
Variability Variant Variation point	Variabilità Variante Punto di variazione
Variability Variant Variation point Verifiability (of requirements)	Variabilità Variante Punto di variazione Verificabilità (dei requisiti)



Term (English)	Termine (Italiano)
Viewpoint	Punto di vista
Vision (for a system or product)	<b>Vision</b> (per un sistema o prodotto)
Walkthrough	Walkthrough
Walkthrough Wireframe	Walkthrough Wireframe



## 3 Sources

I don't cite sources for individual definitions because I deliberately decided not to compile definitions from various existing sources just by copy-paste, but to carefully re-formulate all definitions consistently and according to today's use.

Several definitions are based on my own work [Gl07], [GlWi07], [Gl19]. Most definitions from the agile domain have been taken from or adapted from the IREB RE@Agile Glossary, which was joint work of the RE@Agile working group and me. The revision of the IREB CPRE Foundation Level syllabus [IREB20] also informed several new or changed definitions.

I consulted numerous international standards when writing the definitions [IEEE610], [IEEE730], [IEEE830], [IEEE1012], [IEEE1028], [ISO9000], [ISO12207], [ISO19770], [ISO20246], [ISO24765], [ISO25000], [ISO25010], [ISO26550], [ISO29148], [ISO42010]. However, as the terminology defined or used in these standards is frequently inconsistent or inadequate for a Requirements Engineering glossary, I did not copy any definitions verbatim from these standards.

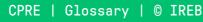
Other sources that influenced some definitions are [GaWe89], [My06], [Po10], [St73], and [ZoCo05].

For cross-checking, I also consulted the Merriam-Webster online dictionary (https://www.merriam-webster.com) and Wikipedia (https://en.wikipedia.org).

Below I want to give credit for some definitions that I have taken more or less verbatim from a source or that are joint work with others. The copyright for cited definitions lies with the authors of the cited work. The copyright for joint work lies jointly with the author of this glossary and the persons mentioned.

Term	Reference
Context boundary	Joint work with Klaus Pohl, Chris Rupp, and Thorsten Weyer,
	based on [Po10], [PoRu11] and [We10]
Functional requirement	Joint work with Klaus Pohl, Chris Rupp, and Thorsten Weyer
Model	Joint work with Klaus Pohl and Chris Rupp, based on [PoRu11]
Quality requirement	Joint work with Klaus Pohl, Chris Rupp, and Thorsten Weyer,
	based on definitions in my course notes on Requirements
	Engineering I
<b>Requirements Engineering</b>	Definition is a simplification of a definition that was joint work with
	Klaus Pohl, Chris Rupp, and Thorsten Weyer
Requirements specification	Adapted from Pohl and Rupp [PoRu11]
System boundary	Joint work with Klaus Pohl, Chris Rupp, and Thorsten Weyer based
	on [Po10], [PoRu11]
System context	Joint work with Klaus Pohl, Chris Rupp, and Thorsten Weyer based
	on [Po10], [PoRu11], [We10]

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[ISO26550]	Software and Systems Engineering — Reference Model for Product Line Engineering and Management. ISO/IEC Standard 26550:2015.
[ISO29148]	Systems and Software Engineering — Life Cycle Processes — Requirements Engineering. ISO/IEC/IEEE Standard 29148:2018.
[ISO42010]	Systems and Software Engineering — Recommended Practice for Architectural Description of Software-Intensive Systems. ISO/IEC Standard 42010:2007.
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[Po10]	Klaus Pohl (2010). Requirements Engineering: Fundamentals, Principles, and Techniques. Berlin–Heidelberg: Springer.
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