GLOSSARY OF TRIZ AND TRIZ-RELATED TERMS

VERSION 1.2

Valeri Souchkov

The International TRIZ Association – MATRIZ, 2018

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The Glossary of TRIZ and TRIZ-Related Terms is intended for practitioners, developers, researchers, scientists, teachers, students involved with the Theory of Inventive Problems Soling (TRIZ).

The current version of the Glossary includes descriptions of 362 terms which have been repeatedly used in the TRIZ publications. The Glossary has been compiled on the basis of terms which belong to both classical and contemporary TRIZ. The Glossary includes both unique TRIZ terms and commonly used terms which are used within specific context in TRIZ. During compilation of the list of the terms various sources were used which are listed at the next pages.

Most of the definitions of the terms are original to provide concise structure and consistency of the entire Glossary. Definitions were given directly in English. A number of relatively new TRIZ terms do not have original Russian translation or remained undefined therefore the Glossary provides their definitions as well.

The Glossary is provided as a table which includes the following fields:

- *Term*: either a unique TRIZ term of a commonly used term which is used within special context in TRIZ.
- *Meaning*: Definition of a term.
- *Example(s):* In some cases examples are provided to better understand the meaning of a term.
- *Comment(s):* In some cases additional comment or several comments related to a term are provided.
- *Categories where a term is used most frequently*: an area or a technique of TRIZ or a list of the areas or techniques of TRIZ where the term is essential.
- *Russian term:* Original version of a term in Russian language.
- *Abbreviation:* a commonly used abbreviation of a term.
- *Synonyms or alternative translations:* In a number of cases a term might have several synonyms which are used in the TRIZ-related publications or has several alternative translations from Russian. Several terms whose alternative translations are still used widely (e.g “technical contradiction” and “engineering contradiction”) were included as separate terms with cross-references.

The Glossary will be regularly updated. Please contact for comments and proposals Valeri Souchkov: valeri@xtriz.com

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Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
40 Inventive Principles	A collection of 40 Inventive Principles developed by the founder of TRIZ G. Altshuller on the basis of extensive studies of information on numerous inventions. The 40 Inventive Principles can be used in combination with the Contradiction Matrix (also known as Altshuller Matrix) or independently.		Although it is widely claimed that approximately 40.000 patents and patent certificates were examined to develop 40 Inventive Principles, there is no known reference to the proof of this statement made by G. Altshuller.	TRIZ Tools	Список изобретательских приемов		
76 Standard Solutions	see System of Inventive Standards			TRIZ Tools, TRIZ Knowledge Bases, Inventive Standards	76 Изобретательских стандартов	76IS	
Abstract Term	A term (word or phrase) which describes a generic feature, property or a function that can be instantiated to a number or more specific terms by adding relevant context. There is no strict dividing line between specific and abstract terms.	The term "separate" can be considered as abstract while the term "to cut through" is specific.		General TRIZ, ARIZ	Абстрактный термин		
Additional Function	A function that is not directly necessary to provide main process but which accompanies a main function or helps to achieve it.			Function Analysis and Modeling	Дополнительная функция		
Additional Inventive Principle	A number of Inventive Principles which were identified after the first collection of 40 Inventive Principles had been completed. Currently there are 10 additional Inventive Principles known.		Additional Inventive Principles are used in different versions of the Contradiction Matrix.	TRIZ Tools	Дополнительный изобретательский прием		
Administrative Contradiction	A description of either a negative (undesired) effect or a necessity to create something new in a situation when neither a problem solving method nor ready to use solution is available.		Although an administrative contradiction might not look as a contradiction since it misses a conflict between parameters or requirements, it indicates a conflict between the necessity to achieve the	General TRIZ	Противоречие административное		Surface Contradiction

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			desired goal and available means to do it.				
Algorithm of Inventive Problem Solving	The central analytical tool of TRIZ (ARIZ is a Russian abbreviation). Its basis is a sequence of logical procedures to analyze a vague or ill-defined initial problem/situation and transform it into a distinct system conflict. Consideration of the system conflict leads to the formulation of a physical contradiction whose elimination is provided with the help of the separation principles, and by the maximal utilization of the resources of the subject system. ARIZ is a system of the most fundamental concepts and methods of TRIZ, such as ideal technical system (ideal system), system conflict, physical contradiction, the Su-Field analysis, the Inventive Standards and the Laws of Technical Systems Evolution. The technique includes a number of psychological and systemic operators to support its procedures.		1) ARIZ is the acronym abbreviated from Russian term "Алгоритм Решения Изобретательских Задач (Algorithm Reshenya Izobretatelskyh Zadach)" written in Latin letters. 2) The latest officially accepted version of ARIZ is ARIZ-85C (or АРИЗ-85В in Russian). 3) There are later versions of ARIZ proposed by different TRIZ Schools but they have not been formally approved yet.	TRIZ Tools	Алгоритм решения изобретательских задач (АРИЗ)	ARIZ	1) Algorithm of Solving Inventive Problems. 2) In older translations from Russian can be abbreviated as AIPS or ASIP
Alternative Technical System	A particular type of a competing technical system that has a complementary pair of advantages and disadvantages with respect to a technical system given.			Feature Transfer	Альтернативная техническая система		Competing Technical System
Altshuller Matrix	The first version of the Contradiction Matrix developed by G. Altshuller, the founder of TRIZ (see Contradiction Matrix)			TRIZ Tools	Таблица основных приемов для устранения типовых технических противоречий		
Analogous Problem	An inventive problem, usually in a different technology area, that has the same abstract problem model (a contradiction, or a Su-Field model, or a function) as an inventive problem given.			General TRIZ, ARIZ	Задача-аналог		

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Analogous Solution	An inventive solution that was obtained by resolving the same type of a physical contradiction with the use of the same problem solving method as some other solution.		Analogous problems might be defined not only through a resolving the same physical contradiction but by having the same Su-Field model or the same function.	General TRIZ, ARIZ	Решение-аналог		
Anticipatory Failure Determination	A method and a technique for identification of potential problems and failures either within a technical system or in its supersystem caused by the technical system. Anticipatory Failure Analysis includes two strategies: 1) AFD Failure Analysis to reveal causes of a negative or undesired effect (see Diversion Analysis), and 2) AFD Prediction Analysis which focuses on predicting potential negative or undesired effects.			TRIZ Tools		AFD	
Anti-Function	A function which is opposite to a function given.	"To accelerate" vs. "to decelerate".		TRIZ Tools	Анти-функция		
Anti-Principle	An Inventive Principle that contains a problem solving recommendation opposite to a recommendation given in one of the known Inventive Principles known.	"Principle of Taking Away" can be considered as anti-principle with respect to the "Principle of Merging".			Анти-прием		
Anti-Process	A process which has its direction opposite to a process given.	"Cooling" vs. "heating", or "assembly" vs. "disassembly".	The use of "anti-process" helps to formulate physical contradictions.	General TRIZ	Анти-процесс		Opposite Process
Anti-System	A technical system whose main useful function is opposite to a function of the technical system given.	A cooler vs. a heater.	In some references, the term "anti-system" is used to describe a system which is competitive to a system given.	General TRIZ, Multi-Screen Diagram of Thinking	Анти-система		
Attribute	A fundamental quality of a material object that characterizes its interaction with other material objects. An attribute can always be associated with a value which can be either	1) Color, 2) Weight, 3) Complexity, 4) Phase state	Examples include electrical conductivity, viscosity, or strength.	General TRIZ, Function Analysis	Аттрибут		

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	linear, non-linear, or discrete. A parameter is a subset of an attribute.						
Auxiliary Function	A useful function provided with respect to a component which can be considered as a subsystem or a component of a higher-system level.			Function Analysis and Modeling	Вспомогательная функция		
Base Technical System	A system to which features from the alternative system are transferred. The base system is one of the two alternative systems selected for improvement.			Feature Transfer	Базовая техническая система		
Basic Function	A useful function directed toward a target object of a technical system being analyzed.			Function Analysis and Modeling	Основная функция		1) Main function, 2) Primary function
Basic Principle	see Operational Principle			General TRIZ, Catalogues to Effects,Trends of Technical Systems Evolution	Принцип действия		
Bell-Curve of Evolution	A curve shaped as a bell depicting a non-linear relation between costs of resources required to provide the main parameter of value or delivery of a main useful function of a technical system and time during evolution of the technical system. The Bell-Curve of evolution includes two phases: Expansion (growth) and Convolution (reduction).			TRIZ Models of Technology Evolution	Колоколообразная кривая (Волнообразная кривая)		
Biological Effect	An effect produced by a biological object (animal, microbe, insect, plant) or combination of such that could be used for inventive problem solving.	To extract a certain substance from environment, a biological object can be used which can accumulate such a substance during metabolic process and then the substance can be extracted from the biological object.		Catalogues of Effects	Биологический эффект		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Bi-System	A technical system which includes two components with identical, biased, or inverse functions or values of the same attribute to create a positive synergetic effect: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function. In addition to two components, two complete technical systems can form a bi-system as well in case if they produce synergetic effect.			Trends of Technical Systems Evolution	Би-система		
Bi-System with Biased Parameters	A technical system which includes two components with biased functions or values of the same attribute to create a positive synergetic effect: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function. Two complete technical systems with biased parameters can form a bi-system in case if they produce synergetic effect.	1) An electric switch which consists of two metal plates with different coefficients of thermal expansion. 2) An electric bicycle that can also be driven by pedals.		Trends of Technical Systems Evolution	Би-система со сдвинутыми характеристиками		Bi-system with similar parameters
Bi-system with Identical Parameters	A technical system which includes two components with identical functions or values of the same attribute to create a positive synergetic effect: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function. Two identical complete technical systems can form a bi-system as well in case if they produce synergetic effect.	1) Spectacles consisting of two lens provide stereoscopic vision. 2) A catamaran consisting of two identical boats provides stability of the ride unachievable by a single boat.		Trends of Technical Systems Evolution	Би-система одинаковыми характеристиками		Homogenious bi-system

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Bi-system with Inverse Parameters	A technical system which includes two components with inverse functions or values of the same attribute to create a positive synergetic effect: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function. Two complete technical systems with inverse functions (anti-systems) can form a bi-system as well in case if they produce synergetic effect.	1) A pencil with an attached rubber. 2) An air conditioner consists of a refrigerator and a heater.		Trends of Technical Systems Evolution	Би-система с противоположными характеристиками		Inverse bi-system
Catalogue of Effects	A database of scientific effects from a scientific discipline in which the effects are structured and categorized according to generic technical functions that can be obtained on the basis of specific scientific effects. In each Catalogue, the effects are combined to different groups which include those effects that can deliver a generic technical function. The following Catalogues of Scientific Effects are known: 1) Catalogue of Physical Effects, 2) Catalogue of Chemical Effects, 3) Catalogue of Geometric Effects, 4) Catalogue of Biological Effects.			TRIZ Tools	Указатель эффектов		
Cause Disadvantage	A disadvantage in the Cause-Effect Chain that is a direct cause of a given disadvantage.			Cause-Effect Chain Analysis	Недостаток - следствие другого недостатка		
Cause-Effect Chain	A graphical model of a technical system being analyzed which maps causes which lead to its disadvantage(s).			Cause-Effect Chain Analysis	Причинно-следственная цепочка недостатков		
Cause-Effect Chains Analysis (CECA)	An analytical tool that identifies the Key Disadvantages of the analyzed Technical system. This is accomplished by building cause-effect chains of disadvantages that link the Target Disadvantage to its fundamental causes.			TRIZ Tools	Анализ Причинно-Следственных Цепочек Недостатков		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Chain Su-Field	A combination of at least two su-fields where a substance of one of the su-fields is controlled by another su-field.			Substance-Field Analysis, Inventive Standards	Цепной веполь		
Chemical Effect	A natural phenomenon known in science of chemistry or combination of such that could be used for inventive problem solving by providing a change required at molecular level.	To extract certain types of substances from environment, electrolytic chemical reaction can be used.		TRIZ Tools, TRIZ Knowledge Bases	Химический эффект		
Classical TRIZ	A collection of TRIZ theoretical postulates and practical tools primarily developed by the founder of TRIZ G. Altshuller or either under his guidance or with his assistance.			General TRIZ	Классическая ТРИЗ		
Clone Problems	Different inventive problems that have identical physical contradictions.			General TRIZ, ARIZ	Здачи-клоны		
Competitive Technical System	A technical system that provides the same technical function as a technical system being analyzed but differs either slightly or radically from the technical system being analyzed. The concept of a competitive technical system is similar to the concept of alternative technical system.	Both a car and a bicycle are used to transport a passenger or a cargo.		General TRIZ	Конкурирующая техническая система		Competing Technical system
Complete Technical System	A technical system that according to the Trend of Technical System Completeness, includes at least four components (subsystems) which provide functions of Engine, Transmission, Control Unit, and Working Unit.			Trends of Technical Systems Evolution	Полная техническая система		
Complete Su-Field	A Su-Field which represents a model of a problem or a solution to the problem expressed in terms of Su-Field Analysis in which at least two substances and a field are present to create a working technical system or a subsystem.			Substance-Field Analysis, Inventive Standards	Полный веполь		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Completion of a Su-Field	Synthesis of a minimal technical system whose model includes at least, two substance components and a field that provides interaction between the two substance components (complete Su-field).			Substance-Field Analysis, Inventive Standards	Достройка веполя		
Complex Su-Field	A complete Su-Field with extra substance or field components and extra interactions that provide conditions necessary for solving an inventive problem.			Substance-Field Analysis, Inventive Standards	Комплексный веполь		
Component	A material object (substance, field, or substance-field combination) that constitutes a part of a technical system or its supersystem. A component might represent both a single object and a group of objects.			Substance-Field Analysis, Inventive Standards	Элемент (компонент)		
Component Analysis	A step in Function Analysis that identifies components of a technical system being analyzed and its supersystem.			Function Analysis and Modeling	Компонентный Анализ		Component and Structural Analysis
Component Cost	The monetary cost of the component. Cost can be relative or absolute.			Function Analysis and Modeling	Стоимость компонента		
Component Functionality	A range of operations produced by a component to contribute to the overall functionality of a system.			Function Analysis and Modeling	Функциональность компонента		
Component Model	A model of a technical system and its supersystem in Function Analysis which consists of function carriers and objects of functions.			Function Analysis and Modeling	Компонентная модель.		
Target Component	An object of the main function of a technical system being analyzed.			Function Analysis and Modeling	Целевой компонент		
Composite Card Index	A bank of documents and examples collected during the process of working on a specific research or development topic within a particular TRIZ development project.			General TRIZ	Сводная картотека		

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Concept of Vertical Mobility	A strategy of stepwise upgrade of goals and tasks by a person dealing with technical creativity which defines three phases of evolution during the creative person's lifetime: 1) Solving specific engineering problems in a narrow area, 2) Solving large-scale engineering or scientific problems, 3) Solving large-scale social problems with the help of breakthrough innovative solutions.			Theory of Creative Individual Development	Концепция максимального движения вверх		
Conceptual Direction	A specific method to achieve the project goals based on solving of a key problem.			General TRIZ	Концептуальное направление		
Conceptual Sub-direction	A specific method of solving a key problem within the frame of the conceptual direction.			General TRIZ	Концептуальное под-направление		
Conflict	see Contradiction		The term "conflict" in TRIZ is often used to present a physical contradiction.	General TRIZ	Конфликт		Contradiction
Conflict Resolution	A type of a solution to an inventive problem which eliminates influence of one parameter on another parameter by decoupling the conflicting parameters instead of parametric optimization, compromise or trade-off.			General TRIZ	Разрешение противоречия		1) Elimination of a contradiction. 2) Conflict resolution
Conflicting Components	The system's components which are involved in a technical contradiction.			General TRIZ, ARIZ	Конфликтующие элементы		Conflict Components
Conflicting Pair	A pair of components formed by a tool and a product interaction between which causes a conflict that prevents from reaching a result required.			ARIZ	Конфликтующая пара		
Contemporary TRIZ	Further extension of Classical TRIZ which includes theories, methods and tools developed after the founder of TRIZ G. Altshuller passed away.			General TRIZ	Современная ТРИЗ		Modern TRIZ

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Contradiction	A situation that emerges when two opposite demands have to be met in order to provide the result required. A contradiction is argued to be a major obstacle to solve an inventive problem and is used as an abstract inventive problem model in a number of TRIZ tools. Three types of contradictions are known in TRIZ: 1) Administrative, 2) Engineering, 3) Physical.			General TRIZ	Противоречие		Conflict
Contradiction Chain	A sequence which shows that a specific Administrative Contradiction is converted to a specific Technical Contradiction and then the Technical Contradiction to the Physical Contradiction.			General TRIZ	Цепочка противоречий		Conflict Chain
Contradiction Matrix	A matrix which provides a systematic access to the most frequently used inventive principles to resolve a specific type of a technical contradiction. In the Contradiction Matrix, the specific type of a contradiction is selected by the pre-defined typical engineering parameters.		The original matrix was developed by G. Altshuller and later updated by other TRIZ developers. Later revisions and modification of the original matrix are usually called "Contradiction Matrix"	TRIZ Tools	Таблица основных приемов для устранения типовых технических противоречий (Таблица Альтшуллера)		1) Contradictions Table 2) Conflict Matrix, 3) Altshuller Matrix, 4) Table of Basic Principles for Elimination of Typical Technical Contradictions, 4) System Conflict Matrix
Contradictions Tree	A tree which relates different contradictions causing a problem. A contradiction tree is obtained as a result of top-down decomposition of the main negative or undesired effect to a number of inter-related causing contradictions.			Cause and Effect Chain Analysis, Root-Conflict Analysis	Дерево противоречий		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Control Unit	One of the key components (subsystems) of a Complete Technical System which according to the Law of System Completeness of a technical system provides control over supply of energy to the other parts of the technical system and coordinates their operation.			Trends of Technical Systems Evolution	Орган управления		
Convolution	An interval on the timeline of a technical system evolution according to the Bell-curve of evolution which follows the phase of the system's Expansion. During Convolution, innovative changes of the technical system result in the decrease of the overall complication of the system, decrease of its dimensions and energy consumption; and decrease of costs required to deliver the system's main useful function or provide the main parameter of value required while still ensuring that the required degrees of quality and performance do not degrade. Three possible scenarios of covolution are possible: 1) Minimal, when all subsystems still remain independent; 2) Partial, when a number of subsystems become a single subsystem; 3) Full, when all subsystems may not work independently. In many cases, partial and full convolution require change of operational principles.	An electronic circuit which consists of independent electronic devices is replaced by a microchip.		Trends of Technical Systems Evolution	Свертывание		1) Folding, 2) Trimming
Cost Analysis	A step in Function Analysis that identifies the absolute and relative costs of components that constitute a technical system being analyzed.			Function Analysis and Modeling	Стоимостной Анализ		
Coupled Interaction	A type of a relationship between two components either in a technical system or the technical system and its supersystem which emerges when the same interaction provides both positive and negative functions.			Substance-Field Analysis, Inventive Standards, ARIZ	Сопряженное полезно-вредное взаимодействие		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Coupled Inventive Principles	A pair consisting of a combination of an Inventive Principle and its Anti-Principle.			General TRIZ	Парные приемы		
Creative Imagination Development	A process of improving personal creative imagination skills supported by a number of methods and tools.			Theory of Creative Individual Development	Развитие Творческого Воображения		
Creative Imagination Development Techniques	A number of methods and tools which comprise various processes and steps to develop creative imagination skills.			Theory of Creative Individual Development	Инструменты развития творческого воображения		
Creativity Trigger	Any factor that activates or boosts creative capabilities of a person within a specific situation.			Theory of Creative Individual Development			
Decomposition of Su-Field Systems	A group of methods of solving inventive problems by eliminating harmful interactions in Su-Fields. These methods are presented by relevant Inventive Standards in the System of 76 Inventive Standards.			Substance-Field Analysis, Inventive Standards	Разрушение веполей		Elimination of harmful actions
Degree of Ideality	A dimensionless measure of an inventive solution, or a technical system, or a process, which identifies the degree of efficiency of the solution, the system, or the process through qualitative estimation of the ratio between useful functionality provided by the system/process/solution and a sum of costs to produce, maintain and utilize the useful functionality. The Degree of Ideality is primarily used to evaluate if a technical system/process/solution being analyzed is more ideal than a competing system/process/solution that provides the same main useful function.			TRIZ Models of Technology Evolution	Степень идеальности		
Delay Zone	A location in a flow in which the integral flow speed is significantly lower than local flow speed. A Delay Zone is a typical disadvantage identified by Flow Analysis.			Flow Analysis	Зона задержки		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Demand	An expression of necessity of producing a change or preventing something from a change usually expressed in engineering or physical terms.	1) Cargo must be moved. 2) Temperature has to increase. 3) Weight of a load must not change.		General TRIZ	Требование		
Derivative Resource	New substances, fields, their properties and parameters that can be obtained on the basis of the existing substance-field resources by subjecting the latter to certain actions.	Such actions can be heating, cooling, decomposition, changing phase state, etc.		General TRIZ, ARIZ	Производный ресурс		
Diagnostic Analysis	A method for analysis of a technical system based on comparing the levels of functions delivery and related problems.				Диагностический анализ		
Diagram (Model) of a Contradiction	A drawing which presents a tool, a product and interactions between them. Sometimes some other component of a technical system being analyzed or its supersystem can be included to the drawing.		In ARIZ, two diagrams of mutually exclusive contradictions are used.	ARIZ	Графическая схема технического противоречия (ТП)		
Diagrams of Typical Conflicts in the Models of Problems	A number of drawings which present different models of technical contradictions emerging most frequently when solving inventive problems.		Listed in ARIZ	ARIZ	Схемы типичных конфликтов в моделях задач		
Dialectics	A direction in philosophy which proposes a method of examining and discussing opposing ideas in order to resolve a conflict. Several underlying concepts from dialectics were used by the founder of TRIZ G. Altshuller to define the fundamental background of TRIZ and its major concepts such as ideality, technical and physical contradictions.		Although dialectics is not a TRIZ term but dialectics is not widely known while is important to understand the basic foundations of TRIZ.	General TRIZ	Диалектика		
Directed Evolution	A method and a tool for performing the forecast of further evolution of a technical system or a technology with the use of the Models, Trends, and Lines of Technical Systems Evolution.		Directed Evolution was developed by Ideation International, Inc.	TRIZ Tools	Направленная эволюция		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Disadvantage	A particular feature that reduces the degree of ideality or perceived value of a technical system or a process.			General TRIZ	Недостаток		
Disruptive Innovation	An inventive solution of high level according to the TRIZ system of Five Levels of Inventions that either resolves a long-standing contradiction or proposes a new technical system that disrupts the existing technology. Usually such a disruptive innovation provides either an S-jump in the evolution of an existing technical system or launches a radically new Technology S-curve.			General TRIZ	Прорывное изобретение		
Double Su-Field	A Su-field which has at least two components made of substance and two different fields providing interaction between the components.			Substance-Field Analysis, Inventive Standards	Двойной веполь		
Duality "Principle-Anti-Principle"	A hypothesis which states that every inventive problem solving method can be complemented with an inventive problem solving method proposing an opposite recommendation. Many couples of the TRIZ inventive principles can be considered as opposite.			General TRIZ	Дуальность "Прием-Антиприем"		
Dynamisation	Evolution in the direction toward more flexible structures capable of adapting to changing environmental conditions (multi-functionality) and to varying performance regimes.			Trends of Technical Systems Evolution	Динамизация		
Effect Disadvantage	Disadvantage in the Cause-Effect Chain that is directly caused by a given disadvantage.			Cause and Effect Chain Analysis			
E-Field	A Su-Field in which one of components is made from material possessing electrical conductivity and which is controlled by electrical field.			Substance-Field Analysis, Inventive Standards	Эполь		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Energy Source	A component of either a technical system or its supersystem that stores and provides energy required to operate the system.			Trends of Technical Systems Evolution	Источник энергии		
Engine	One of the key components (subsystems) of a Complete Technical System which according to the Law of System Completeness of a technical system converts energy to a specific type required to operate a working unit.			Trends of Technical Systems Evolution	Двигатель		
Engineering Contradiction	See Technical Contradiction			General TRIZ, TRIZ Tools			1) System Contradiction 2) Contradiction of demands
Engineering Parameter	A variable dimensional or dimensionless measurable factor, either specific or aggregated, that participates in the definition of an attribute of a technical system, its subsystem, or supersystem and is expressed in terms related to technology (physical, chemical, etc.)	Specific level of conductivity, specific level of viscosity measured in Pascal seconds.		General TRIZ, Contradiction Matrix, ARIZ	Технический параметр		Technical Parameter
Engineering System	See Technical System						
Engineering Problem	A situation which requires to perform a certain change to create new technical system, or improve an existing technical system, or to prevent the technical system from harmful internal or external factors.			General TRIZ	Задача техническая		
Environment Component	A component in the environment of a Su-Field given that can be used to build a new Su-Field, or decompose or evolve the existing Su-Field.			Substance-Field Analysis, Inventive Standards, ARIZ	Элемент внешней среды		Environment Resource
Evolution of Technical Systems	A continuous process of introducing changes to the existing technical systems or developing radically new technical systems in			Trends of Technical Systems Evolution	Развитие технических систем		Technology Evolution

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	order to provide a better satisfaction of the supersystem's needs.						
Evolution of Su-Field Systems	A hypothesis which states that elementary Su-Fields tend to evolve over the time in order to increase their performance, quality and other parameters. A group of problem solving methods based on the evolution of Su-Field Systems is presented in the System of 76 Inventive Standards.			Substance-Field Analysis, Inventive Standards	Развитие веполей		
Evolution Pattern	A description of a specific transformation experienced by a technical system during its evolution which is common for majority of other technical systems independently of technology domains they belong to.			Trends of Technical Systems Evolution	Шаблон эволюции		
Evolutionary Potential Analysis	An analytical tool that helps to determine the potential of a technical system or its subsystem to evolve based on completing a chart with indication of current position of the system or a specific subsystem with respect to each Trend of Technical Systems Evolution.		Modern versions of Contemporary TRIZ from various TRIZ development centers present their own versions of EPA with different collections of the Trends of Technical Systems evolution.	Trends of Technical Systems Evolution	Анализ эволюционного потенциала	EPA	Evolutionary Trends Analysis
Evolutionary Trends Analysis	see Evolutionary Potential Analysis.			Trends of Technical Systems Evolution	Анализ эволюционного потенциала		Evolutionary Potential Analysis
Excessive Function	A physical action performed by an object that results in a positive change or preservation of a value of a parameter or a state of an object of the function but the action is performed with too much effort or with the use of non-optimal amount of resources.			Function Analysis and Modeling	Избыточная функция		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Excessive Interaction	A type of a relationship between two components either in a technical system or the technical system and its supersystem which emerges when one component provides a positive function towards another component but the delivery of the function or obtaining the result from the function delivery requires more resources than necessary.			Substance-Field Analysis, Inventive Standards	Избыточное взаимодействие		
Excessive Action	see Excessive Interaction.			ARIZ, Functional Analysis and Modeling	Избыточное действие		
Existing System	A technical system that exists at a given moment of time and is capable of delivering its main useful function under predefined conditions.			General TRIZ	Существующая система		
Expansion	An interval on the timeline of a technical system evolution when innovative changes targeted at reaching the desired performance of its Main Useful Function result in overall complication of the system, increase of its dimensions and energy consumption, and costs required to deliver the Main Useful Function. Usually the phase of system's Expansion is replaced with a phase of the system's Convolution.			TRIZ Models of Technology Evolution	Развертывание		Unfolding
External Complex Su-Field	A complete Su-Field in which one of the substances presents a combination of two different substances while one the two substances is physically attached to another one.			Substance-Field Analysis, Inventive Standards	Внешний комплексный веполь		
External Conditions	All types of factors in a supersystem which influence behavior of a technical system and produce impact on its features and values of its attributes.			General TRIZ	Внешние обстоятельства		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Fantogramma	A method and a tool for creative imagination development and generating new science-fiction ideas. The tool uses a two-dimensional matrix with one axis along which the so-called universal indicators representing various aspects of life-cycle and functioning of a system are listed and another axis along which a number of principles for generating ideas are presented. New ideas are obtained by applying a specific principle to a specific instance of a universal indicator.			Theory of Creative Individual Development	Фантограмма		
Feature (in Feature Transfer)	A characteristic of an alternative technical system to be transferred to the base technical system to eliminate the disadvantage of the base system.			Feature Transfer	Признак		
Feature Providing Alternative Technical System	An alternative technical system chosen for Feature Transfer.			Feature Transfer	Выбранная альтернативная система		
Feature Transfer	A method and a tool for improvement of a technical system given (base technical system) by transferring certain features from the alternative technical system (competitive technical system) with the aim to combine the useful features in a single system.			TRIZ Tools	Объединение альтернативных систем		
Features of Creative Personality	A set of personal talents and skills which enable a person to perform creative tasks and reach successful results in diverse areas of activities.			Theory of Creative Individual Development	Качества творческой личности		
Fe-Field	A Su-Field in which one of the components is made from ferromagnetic material and is controlled by electromagnetic field.			Substance-Field Analysis, Inventive Standards	Феполь		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Field	A material object without rest mass that transmits interaction between components (subsystems) of a technical system that are represented as substances.	Examples of fields in TRIZ include the following fields: mechanical, acoustic, thermal, magnetic, electric, electromagnetic. Sometime additional fileds like intermolecular, biological, informational are added.	In Substance-Field Analysis definition of a field varies from definition of a field in physics. More specific terms presenting different types of energy exchange can be used. For example, such terms can be used as "acoustic field" or "thermal field", or "friction forces".	Substance-Field Analysis, Inventive Standards	Поле		
Flow	A sequence of events that have the same common feature.			Flow Analysis	Поток		
Flow Analysis	An analytical method and a tool which identifies disadvantages in flows of energy, substances, and information in a technical system.			Flow Analysis	Потоковый анализ		
Flow Disadvantage	A disadvantage of a technical system being analyzed identified during Flow Analysis.	Bottlenecks, "Gray Zones", "Stagnation Zones", etc.		Flow Analysis	Недостаток потока		
Flow Distribution Analysis	A part of Flow Analysis that identifies distribution of flows and their disadvantages.			Flow Analysis	Анализ распределения потоков		
Focal Objects Method	A method and a tool for reducing the degree of psychological inertia and generating new out-of-the box ideas based on transferring features and functions of randomly chosen objects towards an object given (a focal object).			Theory of Creative Individual Development	Метод фокальных объектов		
Four-Level Algorithm for Generating Science-Fiction Ideas	A method and a technique which use TRIZ concepts such as Ideality and Macro-Level Transition to produce new science-fiction ideas.		While the original version of the technique comprised of four levels only, its modern version does not impose limits on how many levels can be introduced.	Creative Imagination Development	Четырехэтажная схема создания фантастических идей		1) Multi-Level Algorithm for Generating Sci-fi Ideas, 2) Four-storied algorithm for generating sci-fi ideas

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Function	Specification of an action performed by a material object (Function Carrier) that results in a change or preservation of a value of an attribute of another material object (Object of the Function).			Function Analysis and Modeling	Функция		
Function Analysis	An analytical method and a tool to model technical systems and their supersystems in terms of functional carriers, objects of the functions, their functions, and the costs of functions delivery and system components. A resulting Function Model of a technical system helps to better understand, extract, visualize, and categorize functional relationships in the system, to rank functions and identify problems.			Function Analysis and Modeling	Функционально-Стоимостной Анализ		1) Functional Analysis, 2) Function-Cost Analysis, 3) Function-Attribute Analysis 4) Value-Engineering Analysis
Function Carrier	A material object that performs (delivers) a function. Can be either a substance, or a field, or a combination of both.			Function Analysis and Modeling	Носитель функции		
Function Category	A characteristic of a function that describes its usefulness. A function can be useful, harmful, or neutral.			Function Analysis and Modeling	Категория функции		
Function Disadvantage	A drawback of a technical system identified during Function Modeling. These drawbacks include harmful functions, as well as inadequately (i.e., excessively or insufficiently) performed useful functions.			Function Analysis and Modeling	Функциональный недостаток		
Function Model	A model of a technical system resulting from Function Analysis that identifies and describes functional relationships between by the components of the System and its Supersystem. Functions representing the functional relationships are characterized by category (useful, harmful, neutral), quality of performance (insufficient, excessive), cost level (insignificant, acceptable and			Function Analysis and Modeling	Функциональная модель		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	unacceptable) and cost of corresponding components.						
Function Modeling	A part of Function Analysis which defines a process and rules for building a Function Model.			Function Analysis and Modeling	Функциональное моделирование		
Function Parameter	A parameter that identifies the performance of a function.			Function Analysis and Modeling	Параметр функции		
Function Rank	A dimensionless measure that determines the importance of the useful function based on the type of its object (i.e., target object of a technical system being analyzed, another component of the technical system, or component of the supersystem).			Function Analysis and Modeling	Ранг функции		
Function Redistribution	Redistribution of useful functions of a component that has been trimmed as a result of Trimming to other components of the technical system being analyzed, or its supersystem			Trimming	Распределение функции		
Functionality	A dimensionless measure of the overall functional contribution by a component or a technical system's to the overall functional value delivered by the component or by the technical system.			General TRIZ, Function Analysis and Modeling	Функциональность		
Function-Ideal Modeling	A method of increasing the degree of ideality of a technical system or a process by decreasing a number of components providing the system's or the process' functionality without loss of quality and performance of the system or the process. A tool which implements Function-Ideal Modeling is called "Trimming".			TRIZ Tools	Функционально-идеальное моделирование		
Function-Oriented Search	A method and a tool for problem solving based upon identifying existing technologies in other areas of technology using function criteria.		Function-Oriented Search (FOS) was proposed and developed by Gen3 Partners, USA.	TRIZ Tools	Функционально-Ориентированный Поиск	FOS	

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Generalized Function	An abstract function for which a specific object and associated action are reduced to universal terms.	Specific function "remove water" can be generalized to "transport liquid".		Catalogues of Effects	Обобщенная функция		
Generic Engineering Function	An abstract engineering function that can be instantiated to a multitude of more specific engineering functions.	The generalized technical function "transport liquid" can be instantiated to such functions as "remove water", "absorb vapor", etc.		Contradiction Matrix	Обобщенная техническая функция		
Generic Engineering Parameter	see Typical Parameter			Contradiction Matrix	Обобщенный технический параметр		Typical parameter
Geometrical Effect	A specific shape or combination of shapes that can be used for inventive problem solving.	The use of hyperbolic shape helps to improve displacement of solid bodies.		Catalogues of Effects	Геометрический эффект		
Goldfish Method	A method and a technique of dealing with a situation when the result desired is first formulated as "impossible to achieve" and then transformed to a set of problem formulations presented in terms of manageable contradictions.			Creative Imagination Development	Метод золотой рыбки		
Harm	Any type of a negative effect produced by a technical system during any moment of its lifecycle with respect to its subsystem or its supersystem and which decreases the overall degree of ideality of the technical system.			TRIZ Models of Technology Evolution	Вред		
Harmful Action	see function, negative			ARIZ, Functional Analysis and Modeling	Вредное действие		
Harmful Function	A physical action performed by an object that results in inacceptable change or inacceptable preservation of value of an attribute (parameter) or a state of another material object.			Function Analysis and Modeling	Вредная функция		Function, negative

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Harmful Interaction	A type of a relationship between two components either in a technical system or between the technical system and its supersystem which emerges when one component provides a negative function towards another component.			Substance-Field Analysis, Inventive Standards	Вредное взаимодействие		
Harmful Machine	A model of a technical system which results from the process of extracting and understanding processes in the system which create negative effects.			General TRIZ	Вредная машина		Harmful System
Harms	A sum of all harms produced by a specific technical system.			TRIZ Models of Technology Evolution	Сумма вреда		
Heuristics	A method of achieving a result required based on using statistically determined rules with high probability of success under specific conditions due to the lack of exact theory proposing how to obtain the result required with the 100% guarantee of success.			General TRIZ	Эвристика		
Hybridization	A technique of merging two or more technical systems that have identical, similar or inverse main useful functions to a single technical system.			TRIZ Tools	Гибридизация		
Idea	An author's expression of a potential solution to an inventive problem whose feasibility has not been proven.			General TRIZ	Идея		
Ideal Technical System	A technical system that has an infinite value. For example, it may have neither components nor associated costs, but still deliver the intended functionality. Similar to the Ideal Final Result such the system may not exist but its definition serves as a target to design the technical system with the highest degree of ideality possible.			General TRIZ	Идеальная техническая система		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Ideal Final Result (General TRIZ)	A solution to an Inventive Problem which helps to obtain the result required with zero compensation factors. As follows from the laws of physics such a solution may never be achieved and therefore the concept of the Ideal Final Result serves to reduce the degree of psychological inertia during the problem solving process by targeting a problem solver towards searching for a solution with the highest degree of ideality.		During development of TRIZ, definition of Ideal Final Result was continuously upgraded, therefore different definitions may be found in the TRIZ literature. In modern TRIZ, Ideal Final Result is used primarily in ARIZ.	General TRIZ, TRIZ Tools	Идеальный конечный результат (ИКР)	IFR	
Ideal Final Result (in ARIZ)	A model of a solution to an inventive problem formulated as a set of justified requirements towards the X-component.			ARIZ	Идеальный конечный результат (ИКР)	IFR	
Ideal Function	A function that does not exist but its effect is produced.			Function Analysis and Modeling	Идеальная функция		
Ideal Machine	see Ideal Technical System			General TRIZ	Машина идеальная		
Ideal Resource	A substance-field resource that does not exist but its property is available and can be used to solve an inventive problem.		Due to laws of physics the Ideal Resource may not exist but its definition is used to search for inventive solutions with high degree of ideality.	General TRIZ	Идеальный ресурс		
Ideal Solution	see Ideal Final Result			General TRIZ	Идеальное решение		
Ideal Substance	A substance that does not exist but its property is available and can be used to solve an inventive problem.		Due to laws of physics the Ideal Substance may not exist but its definition is used to search for inventive solutions with high degree of ideality.	General TRIZ	Идеальное вещество		
Ideality	A dimensionless measure of an inventive solution which qualitatively identifies how closely the sum of compensation factors to			TRIZ Models of Technology Evolution	Идеальность		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	produce, maintain and utilize the solution approaches zero value.						
Ideality Audit	A process of identification of the degree of ideality of a technical system being analyzed by comparing it with one or more competitive technical systems.			General TRIZ	Оценка идеальности		
Ideality Equation	The ratio between Useful Functionality of the technical system versus Harms that are produced by the system.		There are several types of ideality equations proposed by different TRIZ Schools. E.g., some other type of the ideality equation (by Ideation International, Inc.) proposes to add costs to harms in the denominator.	TRIZ Models of Technology Evolution	Формула идеальности		Ideality Formula
Ideas Landscape	A graphical chart that represents ideas evaluated and positioned respectively two or more dimensions representing different evaluation criteria.			TRIZ Tools	Ландшафт идей		
Ideas Portfolio	A list of inventive solution ideas in which all the ideas generated are grouped, structured or categorized according to a certain criterion or a set of criteria.			TRIZ Tools	Портфолио идей		
Improving Parameter	A typical technical parameter whose value of an attribute must be improved or changed to solve an inventive problem. A list of Improving Parameters in used in the Contradiction Matrix.			Contradiction Matrix	Улучшаемый параметр		1) Improving Feature, 2) Positive Parameter
Incomplete Su-Field	A Su-Field which represents a model of a problem expressed in terms of Substance-Field Analysis and which lacks one or more substances, or a field, or an interaction to create a working technical system.			Substance-Field Analysis, Inventive Standards	Неполный веполь		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Innovation	An implemented inventive solution. Innovations in engineering and technology are primarily based on a single or a number of inventions or scientific discovery.			General TRIZ	Инновация		
Innovation Agenda	Multi-year plan for innovation projects directly linked to the organization's growth objectives.			General TRIZ	Инновационнный план		
Innovation Process	A process of transforming an idea of an inventive solution to a working solution including its further implementation. Depending on the initial situation, the innovation process can include the inventive process to generate a new solution idea or exclude it if the inventive idea is brought from outside.			General TRIZ	Инновационный процесс		Innovative Process
Innovative Concept	An idea of innovative solution whose feasibility has been proven but not necessarily implemented.			General TRIZ	Концепция		
Innovative Task	A specific category of a goal that has to be reached by performing an inventive process.	1) To eliminate negative effect, 2) to increase performance, 3) to radically cut costs, etc.		General TRIZ	Инновационная задача		
Insufficient Function	A physical action performed by an object - function carrier that results in a positive change or preservation of a value of a attribute of an object of the function but the action is performed with fewer degree of performance than required.			Function Analysis and Modeling	Недостаточная функция		
Insufficient Interaction	A type of a relationship between two components either in a technical system or in the technical system and its supersystem which emerges when one component provides a positive function towards another component but the degree of performance of the function delivery or the required result			Substance-Field Analysis, Inventive Standards	Недостаточное взаимодействие		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	from the function delivery do not reach the value required.						
Intensification of Contradicting Demands	Increasing values of attributes in a contradiction towards their limits or infinity.			ARIZ	Обострение противоречия		Conflict Intensification
Intensified Contradiction	A formulation of a contradiction in which values of attributes involved to the contradiction approach their limits or infinity.			ARIZ	Усиленная формулировка конфликта		Intensified Conflict
Interaction Analysis	A part of Function Analysis that identifies interactions between components included in a Component Model.			Function Analysis and Modeling	Анализ взаимодействий		Structure Analysis
Interaction Matrix	A matrix that identifies present or potentially possible interactions both between components of a technical system and between the components of the technical system and components of its supersystem.			Function Analysis and Modeling	Матрица взаимодействий		
Intermediate Disadvantage	A disadvantage in the Cause-Effect Chain that is not a Target or a Key Disadvantage.			Cause and Effect Chain Analysis	Промежуточный недостаток		
Internal Complex Su-Field	A complete Su-Field in which one of the substances presents combination of two different substances while one the two substances is added physically (inserted inside, mixed, etc.) to another substance.			Substance-Field Analysis, Inventive Standards	Внутренний комплексный веполь		
Invention	Either a significant improvement of an existing technical system or a process or development of a radically new technical system or a process, which possesses novelty and provides social value. An Invention can be obtained by either 1) on the result of resolving a contradiction caused by an existing technical system or a process, or 2) on the use of a scientific effect and discoveries used to develop a radically new			General TRIZ	Изобретение		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	engineering solution with a new technical function.						
Inventive Principle	A recommendation that provides generic guideline(s) indicating how to solve an inventive problem represented as an engineering or physical contradiction. Inventive Principles were extracted and formulated on the basis of extensive studies of diverse documents describing inventions (such as patents) and innovations.			TRIZ Tools, TRIZ Knowledge Bases	Изобретательские прием		
Inventive Principle at Macro-Level	A method of applying an Inventive Principle without utilizing advantages of scientific effects which can be used to provide a result required by using properties of substances and fields at micro scale.			TRIZ Tools, TRIZ Knowledge Bases	Прием на макроуровне		
Inventive Principle at Micro-Level	A method of applying an inventive principle with utilizing advantages of scientific effects which can be used to provide an action required by using properties of substances and fields at micro scale.			TRIZ Tools, TRIZ Knowledge Bases	Прием на микроуровне		
Inventive Problem	A situation which requires to perform a certain action either to create a new technical system to deliver a new main useful function, or to improve the function delivery by an existing technical system, or to prevent the technical system or its product from harmful internal or external factors in the situation when all known solution methods can not be applied to achieve the result required. The same inventive problem can be presented by different inventive problem models.			General TRIZ	Изобретательская проблема		
Inventive Problem Definition	A textual description (sometimes including graphics) which presents specific information related to an inventive situation given and indicates what exactly has to be changed, a goal and constraints.			General TRIZ, TRIZ Tools	Определение изобретательской задачи		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Inventive Problem Model	A model which only includes those components that are essential for further solving the problem with a specific TRIZ Problem Solving Tool. In TRIZ, inventive problems can be modeled as technical or physical contradictions, inefficient or harmful Su-Fields, inefficient or harmful functional interactions, generic technical functions. A model that represents an inventive problem often is used as a part of Inventive Problem Definition.			General TRIZ, TRIZ Tools	Модель изобретательской задачи		
Inventive Problem Solving	A process which consists of a number of steps to find an Inventive Solution to an Inventive Problem.			General TRIZ	Решение изобретательских задач		
Inventive Process	A process of transforming an initial ill-defined inventive situation to the description of a patentable solution idea (Invention)			General TRIZ	Изобретательский процесс		
Inventive Situation Questionnaire	A list of generic questions which have to be answered before starting a TRIZ process to describe and present an inventive situation. The questions are aimed at collecting useful information about needs, goals, demands, constraints as well as about existing solutions.			General TRIZ			
Inventive Situation	A situation which is featured by a presence of a need to satisfy a specific supersystem's demand without either a clearly defined problem to solve or a problem solving direction to be chosen.			General TRIZ	Изобретательская ситуация		
Inventive Situation Analysis	A process of decomposing an ill-defined inventive situation to a set of goals, tasks, inventive problems definitions, and constraints.			General TRIZ	Анализ изобретательской ситуации		
Inventive Solution	A solution to a specific Inventive Problem that matches the requirements of invention.			General TRIZ	Изобретательское решение		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Inventive Standard	A problem-solving method which proposes a rule presenting how to transform a Su-Field given to achieve the result required. The description of the rule consists of two parts: its left part presents an existing Su-Field that has to be improved (a generic model of a problem) and its right part presents a Su-Field that implements such an improvement (a generic model of a solution).		A number of Inventive Standards do not contain drawings of Su-Fields and use textual explanations instead.	TRIZ Tools, TRIZ Knowledge Bases	Изобретательский стандарт		
Inventive Standards for Change	A group of Inventive Standards which propose methods of solving Inventive Problems of Change that require to improve performance or quality of a technical system, to add a new feature, or to eliminate a negative effect.		Standards for system modification	Substance-Field Analysis, Inventive Standards	Изобретательский стандарт на изменение		
Inventive Standards for Measurement and Detection	A group of Inventive Standards which propose methods of solving Inventive Problems of Measurement and Detection that require to measure value of a specific parameter or detect a change in of a specific attribute of a component at a moment given.			Substance-Field Analysis, Inventive Standards	Изобретательский стандарт на обнаружение или измерение		
Inventive Standards on Application of Inventive Standards	A group of Inventive Standards which propose methods of enhancing the use of Inventive Standards of Change or Inventive Standards of Measurement and Detection, or to use these Inventive Standards when the problem constraints do not allow their use.			Substance-Field Analysis, Inventive Standards	Стандарты на применение стандартов		
Key Disadvantage	A disadvantage to be eliminated to achieve the project goal. Usually, Key Disadvantages appear at the root of a Cause-Effect Chain.				Ключевой недостаток		
Key Problem	A problem to be solved to achieve project goals within the specified constraints.			TRIZ Tools	Ключевая проблема		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Key Problem Analysis	An analytical method and a tool that first eliminates redundant Key Problems from all the Key Problems identified during the Problem Identification stage, then identifies trivial Key Problems and, finally, classifies non-trivial problems as function- or contradiction-based.			TRIZ Tools	Анализ ключевой проблемы		
Laws of Technical Systems Evolution	Original and still in use term originated by the founder of TRIZ G. Altshuller to present a number of common generic patterns, trends and lines which govern evolution of all technical systems.		Later the term started to be replaced with the term "Trends of Technical Systems Evolution" due to the lack of exact statistical proof that the laws of technical systems evolution are valid for all technical systems under certain circumstances without exception.	Trends of Technical Systems Evolution	Законы развития технических систем		
Level of Invention	A dimensionless qualitative measure which evaluates an inventive solution according to an estimated number of trials necessary to produce such the solution and the degree of its contribution to the general evolution of technology and engineering.		Currently 5 levels of inventions are known: 1) "Non-inventive invention": very simple invention that does not produce any significant impact on the evolution of a technical system, 2) Invention that emerges from resolving a technical contradiction by a method available in the narrow engineering domain where the invention belongs to, 3) Invention that emerges from resolving a complex technical contradiction by a method known in the engineering domain given, 4) Invention that emerges from resolving a technical	General TRIZ	Уровень изобретательских решений		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
			contradiction by a method available in a different engineering domain; 5) Pioneering invention that deals with complex inventive situations and which launches a radically new technology area.				
Level of Useful Function Performance	The ratio between the actual and required values of the function parameter. If the actual value is higher than the required value the level is excessive. If the actual value is lower than the required value, the level is insufficient. If the actual value is equal to the required value, the level is normal.			Function Analysis and Modeling	Уровень производительности функции		
Life Strategy of Creative Personality	A field of study which explores biographies of known creative persons to extract specific patterns indicating how a creative person solves all types of personal and social problems and what path a creative person follows during his or her lifetime to achieve his goals.			Theory of Creative Individual Development	Жизненная Стратегия Творческой Личности		
Line of Technical Systems Evolution	A line presenting a general direction of evolution which shows a number of specific non-contradictory successive transformations a technical system or its part passes through during its evolution according to a specific criterion.		Some Trends of Technical Systems Evolution can include several specific lines of evolution.	Trends of Technical Systems Evolution	Линия развития технических систем		
Lines of Technical Systems Evolution	A collection of the Lines of Technical Systems Evolution which brings together all the Lines of Technical Systems Evolution that belong to corresponding Trends of Technical Systems Evolution. Each transformation in the Line of Technical Systems Evolution is presented as a specific Evolution Pattern.				Линии развития технических систем		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Macro-Level	A supersystem where a selected component or a technical system belongs to.		The term "Macro-Level" can have two meanings: 1) Indication of a supersystem, 2) Indication of the fact that changes are produced at macro scale, without the use of particles or fields.	Trends of Technical Systems Evolution	Макро-уровень		
Macro-Level Physical Contradiction	A type of a physical contradiction used in ARIZ, in which the contradicting demands are applied to relatively large-scale components or their attributes expressed in terms of physical parameters or states.			ARIZ	Физическое противоречие на макро-уровне		
Main Function	A primary function for which a technical system is assigned. Main Function realizes a purpose of the technical system with respect to its supersystem.			Function Analysis and Modeling	Основная функция		1) Prime Function, 2) Prime Function
Main Functional Parameters of Value	The objective technical (physical, chemical, geometrical, biological, etc.) characteristics that underlie the Main Parameter of Value.			General TRIZ	Основные функциональные параметры ценности	MFPVs	
Main Parameters of Value	Characteristics and features of a technical system that impact customer's perceived value and purchase decisions.			General TRIZ	Главные параметры ценности	MPV	
Main Production Process	A process that ensures delivery of a main useful function by a system or its subsystem.			ARIZ	Главный производственный процесс		Main Useful Process
Main Useful Function	see Main Function			General TRIZ	Главная полезная функция	MUF	
MATChEM	Abbreviation use to memorize common type of fields used in TRIZ to solve Inventive Problems: Mechanical, Acoustic, Thermal,			General TRIZ, Inventive Standards	МАТХЭМ		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	Chemical, Electrical, Magnetic. The last two letters EM also stand for "Electromagnetic".						
Material Object	A part of environment that has at least one specific feature that distinguishes this part from the rest of the environment. A material object can be represented by a substance, a field, or combination of both.			General TRIZ	Материальный объект		
Maxi-Problem	An Inventive Problem Definition which does not impose constraints on future inventive solutions.			General TRIZ	Задача максимальная (макси-задача)		
Measurement Function	A providing Function that reveals information about components.			Catalogues of Effects	Измеритьельная функция		
Measurement Su-Field	A special type of a Su-Field which is used to present models of inventive problems where measurement or detection is required in terms of Substance-Field Analysis.			Substance-Field Analysis, Inventive Standards	Измерительный веполь		
Method of Trends	A technique which explores what contradictions will emerge in a future if two current trends in the technology and society will evolve to reach their limits.			Creative Imagination Development	Метод тенденций		
Method of Trials and Errors	A non-algorithmic way to generate new solution ideas based on a direct mental jump from a problem given to an idea. A primary drawback of the method is a necessity in most cases to generate a large number of ideas to solve a difficult problem that might result in a long period of time and many problem solving attempts till a feasible idea is found.			General TRIZ	Метод проб и ошибок (МПиО)		
Methods for Eliminating Psychological inertia	A group of methods which focus on using special psychological means for reducing the degree of psychological inertia to expand the ideas search area. Most known methods of reducing psychological inertia were known			Creative Imagination Development	Методы устранения психологической инерции		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	before TRIZ, such as brainstorm, Synectics, etc.						
Micro-Level Physical Contradiction	A type of a physical contradiction used in ARIZ, in which the contradicting demands are applied to particles comprising large scale objects.			ARIZ	Физическое противоречие на микро-уровне		
Micro-Problem	A type of Inventive Problem Definition which is formulated after a problem solving direction has been identified after application of the method "Step Back from IFR".			ARIZ	Задача микро		
Mini-Problem	A type of Inventive Problem Definition which is obtained by imposing the following constraints on a given inventive situation: everything remains as is (without any changes) or becomes even simpler but the required positive effect is provided or the harmful effect disappears. Definition of a Mini-Problem targets at obtaining a solution required with as minimal changes in the existing technical system as possible.			ARIZ	Задача минимальная (мини-задача)		
Model of an Inventive Problem	see Inventive Problem Model			General TRIZ	Модель изобретательской задачи		
Modeling with "Smart Little People"	A method and a technique for generating new solutions through graphic presentation a physical contradiction in a technical system by acting crowds of "little people" and proposing new solution ideas by modifying behavior of the "little people". A primary goal of the method is to decrease the degree of psychological inertia when solving a problem.			Creative Imagination Development, ARIZ	Метод моделирования маленькими человечками		1) Modeling with Smart Little Men, 2) Modeling with Miniature Dwarfs

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Modified Environment	A part of a system or its supersystem which usually surrounds a subsystem where an inventive problem emerged with permanently or temporarily changed physical or chemical parameters in order to acquire properties required for solving the inventive problem.			Substance-Field Analysis, Inventive Standards	Измененная среда		
Mono-system	A system or a subsystem consisting of non-repeating components.			Trends of Technical Systems Evolution	Моносистема		
Morphological Table	A method developed outside TRIZ for exploring all possible solutions to a multi-dimensional, non-quantified complex problem. The method is based on exhaustive search for all combinations of values of attributes representing a system causing the problem.			Creative Imagination Development, ARIZ	Морфологический ящик		
Multi-Screen Analysis	A method and a tool based on the use of Multi-Screen Diagram of Thinking to forecast future evolution of a system based on the comparative analysis of a past generation of the system, its subsystems and supersystem and a current generation of the system and its projection to the future generations of the system.			TRIZ Tools	Многоэкранный Анализ	MSA	
Multi-Screen Diagram	A method of analyzing a technical system which considers properties and features of the system in their relationships with subsystems and supersystem as well as with previous generations of the system, its subsystems and supersystem, and their projections to the future generations of the system.			General TRIZ, Creative Imagination Development, Theory of Creative Individual Development	Многоэкранная схема		1) System Operator, 2) Multi-Screen of Talented Thinking; 3) Nine Windows, 4) Nine Boxes; 5) Nine Screens 6) Multi-Screen Scheme of Talented Thinking

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Negative Effect	A result of a function, action or interaction which negatively impacts the required specifications.				Отрицательный эффект		
Neutral Function	A physical action performed by a material object - function carrier - that results in neither any meaningful change nor preservation of a value of an attribute of an object of the function.			Function Analysis and Modeling	Нейтральная функция		
Non-Algorithmic Methods	Methods of solving problems and generating new ideas that do not incorporate a structured approach to stepwise transition from a problem to a solution.			General TRIZ	Неалгоритмические методы		
Non-Routine Inventive Problem	see Non-Standard Inventive Problem			General TRIZ	Задача изобретательская нетиповая / нестандартная		
Non-Standard Inventive Problem	An inventive problem whose solution model is either not available in the TRIZ Knowledge Bases or can not be solved with an application of available solution models.			ARIZ	Нестандартная изобретательская проблема		1) Non-Typical Inventive Problem 2) Routine Inventive Problem
Object of Function	A material object, whose value of a certain attribute is changed as a result of performing a function targeted at the material object.			Function Analysis and Modeling	Объект функции		
Open-ended Problem	A problem to which an algorithmic solution doesn't exists. As a rule, conditions of an open-ended problems are fuzzy, which means that they either lack sufficient data, or the data is available in latent form, or there can be excessive data (information noise). The open-ended problem implies the possibility of different ways of solving the problem and different variants of its solution.			General TRIZ, TRIZ-Pedagogy	Открытая задача		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Operation	An action produced on a material object with the goal of changing value of an attribute of the material object.			General TRIZ, Functional Analysis and Modeling	Операция		
Operational Time	A time interval during which a physical conflict (or a negative effect) that creates a problem occurs. Three time intervals can be defined: 1) Time before conflict, 2) Time of conflict, 3) Time after conflict.			ARIZ	Оперативное время		Operation Time
Operational Zone	A part of physical space where a conflict (or a negative effect) that causes an inventive problem occurs. Usually Operational Zone includes material objects directly involved to the conflict.			ARIZ	Оперативная зона		Operation Zone
Operational Principle	An abstract concept presenting how a required function can be obtained on the basis of a scientific effect or combination of scientific effects. Operational Principle can be instantiated into a multitude of different designs of technical systems or components.			General TRIZ, Catalogues to Effects	Принцип действия		1) Basic Principle. 2) Working principle. 3) Operation Principle.
OTSM-TRIZ	An abbreviation standing for "The General Theory of Powerful Thinking - TRIZ" and presenting a field of study which emerged from Classical TRIZ. OTSM-TRIZ aims at understanding how a systematic approach to organizing a thinking process can enhance personal thinking skills and convert it to so-called "talented thinking" irrespectively of an application area. OTSM-TRIZ uses fundamental TRIZ Postulates added with a number of OTSM-TRIZ Axioms as its background.		The term "OTSM" is an abbreviation of the Russian term "Obshtchaya Teorya Silnogo Myshlenia" written in Latin letters.	General TRIZ	ОТСМ-ТРИЗ		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
OTSM-TRIZ Axiom	A statement that must be accepted without proof and which introduces a specific postulate to form fundamental basis on which the theories, methods and tools of OTSM-TRIZ are being constructed.			**OTSM-TRIZ**	Аксимома ОТСМ-ТРИЗ		
Parameter	A variable dimensional or dimensionless measurable factor, either specific or aggregated, that participates in the definition of an attribute of a material object of a technical system or its supersystem and determining its borders and behaviors. Parameters can be physical and non-physical.		Parameters can be measured by absolute or relative values.	General TRIZ	Параметр		
Parameter Change	Change of a measurable value of a Parameter.			General TRIZ	Изменение параметра		
Partial Action	see Insufficient Function			ARIZ, Functional Analysis and Modeling	Частичное действие		
Patent	A legal document issued by a national or international authority to protect intellectual property rights of an owner of a patent concerning a specific invention for a limited period of time.			General TRIZ	Патент		
Patent Benchmarking (in TRIZ)	A comparative study of two or more patents protecting competitive technical systems or inventive solutions against a specific TRIZ Trend of Technical Systems Evolution or a selected number of trends.			General TRIZ			
Patent Circumvention	A method to legally circumvent constraints imposed by a competitive patent, i.e., to obtain the freedom to operate without infringing on the patent owner's rights.			General TRIZ	Обход патента		
Patentable Solution	A novel inventive solution that matches all the formal requirements that have to be met			General TRIZ	Патентноспособное решение		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	in order to issue a patent to protect the solution.						
Performance of Main Parameter of Value	An aggregate measure of how well a product fulfills market demands and requirements.			General TRIZ	Производительность главного параметра ценности		
Phase of System's Birth and Early Development	An interval on the evolution timeline of a technical system which starts after the system has been invented and continues till value of its main attribute achieves minimal value required.			TRIZ Models of Technology Evolution	Этап зарождения технической системы и раннего развития		
Phase of System's Growth	An interval on the evolution timeline of a technical system which starts after a system's main attribute has achieved the value required and continues to grow till reaching its limit due to exhausting resources provided by an operational principle behind the technical system.			TRIZ Models of Technology Evolution	Этап роста технической системы		
Phase of System's Maturity	An interval on the evolution timeline of a technical system which starts when value of a system's main attribute has stopped to grow rapidly.			TRIZ Models of Technology Evolution	Этап взросления технической системы		
Phase of System's Stagnation	An interval on the evolution timeline of a technical system which starts when value of a system's main attribute has stopped growing.			TRIZ Models of Technology Evolution	Этап застоя в развитии системы		
Physical Conflict	see Physical Contradiction			General TRIZ, ARIZ	Конфликт, физический		
Physical Contradiction	A situation that emerges when a certain attribute of a material object must have two different values at the same time to provide a result required. An attribute can be a physical parameter, aggregate state, location, etc.			General TRIZ, ARIZ	Физическое противоречие		1) Physical Conflict, 2) Sharpened Contradiction, 3) Contradiction of properties

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Physical Effect	A natural phenomenon known in science of physics or combination of such that could be used for inventive problem solving.	Bernoulli's Principle is used to control pressure in fluids, or centrifugal motion can be used to mix two liquids.		Catalogues of Effects	Физический эффект		
Physical Parameter	A variable dimensional or dimensionless measurable factor, either specific or aggregated, that participates in the definition of an attribute of a material object expressed in terms of physics.			General TRIZ	Физические параметры		
Poly-system	A technical system which includes three of more components with identical, biased, or inverse functions or values of the same attribute to create a positive synergetic effect: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function. Three or more complete technical systems can form a poly-system as well in case if they produce a synergetic effect.			Trends of Technical Systems Evolution	Полисистема		
Poly-system with Biased Parameters	A technical system which includes three of more components with biased functions or values of the same attribute to create a positive synergetic effect: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function. A poly-system can be formed by three or more complete technical systems with biased functions or values of the same attribute.	1) A pen containing several rods filled by ink of different colors. 2) Set of crayons of different colors.		Trends of Technical Systems Evolution	Полисистема со сдвинутыми характеристиками		Poli-system with similar parameters

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Poly-system with Identical Parameters	A technical system which includes three of more components with identical functions or values of the same attribute to create a positive synergetic effect: either a considerable multiplication or decrease of a value of an attribute, or delivering a new property, or production of a new function Three or more complete technical systems can form a poly-system as well in case if they produce a synergetic effect.	1) A propeller with three or more blades. 2) A computer network that consists of identical computers.		Trends of Technical Systems Evolution	Полисистема с одинаковыми характеристиками		
Poly-system with Inverse Parameters	A technical system which includes three of more components with inverse functions or values of the same attribute to create a synergetic effect. Three or more complete technical systems with inverse functions (anti-systems) can form a poly-system as well in case if they produce a synergetic effect.	1) An electronic component which consists of a number of electricty conducting and isolating components. 2)		Trends of Technical Systems Evolution	Полисистема с противоположными характеристиками		
Poorly Controllable Interaction	A type of a relationship between two components either in a technical system or the technical system and its supersystem which emerges when one component provides a positive function towards another component but the degree of control over the function delivery or over the result from the function delivery is not sufficient.			Substance-Field Analysis, Inventive Standards	Плохо регулируемое взаимодействие		
Positive Effect	A situation when a function, action, or interaction leads to the result required.			Cause and Effect Chain Analysis, Root-Conflict Analysis	Положительный эффект		
Positive Interaction	A type of a relationship between two components either in a technical system or the technical system and its supersystem which emerges when one component provides a positive function towards another component.			Substance-Field Analysis, Inventive Standards	Положительное взаимодействие		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Principle of Separating Contradictory Demands	A particular method which proposes a specific solution direction for separation of contradiction demands.			General TRIZ, ARIZ	Прием разделения противоречивый требований		1) Principle of Separating Contradicting Demands 2) Principle of Separating Conflicting Demands
Problem Analysis	A process of transformation of an inventive problem definition given to a well-defined problem formulated in terms of a problem model valid for a specific TRIZ problem solving tools and extracting information needed to find a solution to the problem.			General TRIZ, TRIZ Tools	Анализ проблемы		
Problem Formulator	A technique which presents a situation that causes a specific model in terms of interrelated functions and effects caused by the functions.		Developed by Ideation International, Inc.	TRIZ Tools	N/A		
Problem Model	See Inventive Problem Model			General TRIZ, TRIZ Tools	Модель проблемы		
Problem of Change	An inventive problem which requires to improve performance or quality of a technical system, to add a new feature, or to eliminate a negative effect. Solutions to such problems mostly result from changing a technical system given.			Inventive Standards, Catalogues of Effects	Задача на изменение		
Problem of Measurement or Detection	A problem which requires to measure value of a specific parameter or detect presence or a change in a specific attribute of a component at a moment given. Most often solutions to such problems result from creating new technical systems or improvement of the existing technical systems for measurement or detection.			Inventive Standards, Catalogues of Effects	Задача измерения или обнаружения		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Problem Statement	Description of goals, constraints, demands and conditions that have to be met in order to search for a relevant solution.			General TRIZ	Постановка задачи		
Process Model	A model of a technical system built in the form of a sequence of actions.			Function Analysis and Modeling	Модель процесса		
Product	A technical system that is an object of Innovation.			General TRIZ	Продукт		
Product (in ARIZ)	A conflicting component that is an object of the function performed by the Tool (term originated in ARIZ; corresponds to Object of function).			ARIZ	Изделие		
Productive Function	A Useful Function that irreversibly changes a value of an attribute of a technical system.				Создающая функция		
Property	An attribute of a material object that represents one of its specific abilities which can be used for producing either a positive or a negative effect.	Fragility of the glass can be used to break the glass.		General TRIZ, ARIZ, Inventive Standards	Свойство		
Proto Su-Field	see Incomplete Su-Field			Substance-Field Analysis, Inventive Standards	Прото-веполь		
Providing Function	A Useful Function that helps perform other Useful Functions.			Function Analysis and Modeling	Обеспечивающая функция		
Psychological Inertia	Accumulated personal experience, knowledge and associations that prevent a person from thinking out of the box.			Creative Imagination Development	Инерция мышления		Mental Inertia
Relative Cost	A cost of a component expressed as a percentage of the overall cost of the entire technical system.			Function Analysis and Modeling	Относительная стоимость		
Relative Value	Ratio of product's value to the value of competitive products.			General TRIZ	Относительная значимость		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Relative Value of Main Parameter of Value	A dimensionless indicator of relative position. Reflects what is commonly referred to as our "Value Proposition."			General TRIZ	Относительное значение Главного параметра ценности		
Repository of Science Fiction Ideas	A database of science-fiction ideas drawn from science-fiction literature in which each idea is evaluated and categorized according to a number of criteria.			Creative Imagination Development	Регистр НФ-идей		
Resource	Any type of tangible or intangible matter that can be used to solve an inventive problem: time, space, substances, fields, their properties and parameters, etc.			General TRIZ	Ресурс		
Resource Analysis	Examination of resources available in the technical system and its supersystem in order to compile a list of resources that can be used for solving a particular inventive problem.			General TRIZ, ARIZ	Анализ ресурсов		
Rhythm Harmonization	Coordination of working frequencies of interacting subsystems or components.			Trends of Technical Systems Evolution	Согласование ритмики		
Root Conflict	A contradiction that causes emergence of other contradictions and negative effects.			General TRIZ, Root Conflict Analysis	Корневой конфликт		Root Contradiction
Root Conflict Analysis	A method and technique for top-down decomposition of an inventive problem formulated in terms of a negative effect to a tree of interrelated contradiction causes, negative, and positive effects.		Developed by ICG Training & Consulting	TRIZ Tools	Причинно-конфликтный анализ		
Routine Inventive Problem	see Standard Inventive Problem			General TRIZ, Inventive Standards, ARIZ	Стандартная задача		
Scientific Effect	A natural phenomenon or combination of such that can be used for inventive problem solving or generation of a new technical			Catalogues of Effects	Научный эффект		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	system or its subsystem based on a new operational principle.						
S-Curve Analysis	Determining the potential of further evolution of a specific Technical system or a specific technology with respect to defining their current positions on the S-Curve of Evolution.			Trends of Technical Systems Evolution	Анализ S-кривой		
S-Curve Jump	A transition from one S-Curve featuring evolution of a technical system to another S-Curve due to a disruptive innovation that makes it possible to radically rise a value of one of the most important attributes of the system at the phases of maturity or stagnation of the existing system.			Trends of Technical Systems Evolution	Прыжок на S-кривой		S-Jump
S-Curve of Evolution	A curve which represents a non-linear relation between a change of a value of one of the most important attributes of a technical system and time. The value of the attribute is presented along the vertical axis while time is presented along the horizontal axis. A typical S-Curve has shape similar to Latin letter "S" due to three distinct time intervals: 1) Phase of a System Birth and Early Development where the value of the attribute rises relatively slowly, 2) Phase of System Growth where the value of the attribute rises rapidly and 3) Phase of Maturity where the value of the attribute rises relatively slowly or does not rise at all. Sometimes an extra interval is added to S-Curve presenting the phase of stagnation.			Trends of Technical Systems Evolution	S-образная кривая		S-Curve is similar to a logistic curve known in other disciplines beyond TRIZ.
Secondary Problem	A problem that has to be solved in order to implement an inventive solution proposed to an inventive problem given.			General TRIZ	Вторичная проблема		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Separation of Contradicting Demands	A method of solving an inventive problem by satisfying two contradicting demands in the win-win way through decoupling the demands rather than by using optimization or trade-off.			General TRIZ, ARIZ	Разделение противоречивых требований		Separation of Conflicting Demands
Separation of Contradicting Demands in Condition	A method of separating two contradicting demands that create a physical contradiction which proposes to provide specific conditions within a technical system or its supersystem to avoid emergence of the conflict of the demands.			General TRIZ, ARIZ	Разделение противоречивых требований по условию		
Separation of Contradicting Demands in Space	A method of separating two contradicting demands that create a physical contradiction which proposes to provide meeting of the conflicting demands in different parts of space.			General TRIZ, ARIZ	Разделение противоречивых требований в пространстве		
Separation of Contradicting Demands in Structure	A method of separating two contradicting demands that create a physical contradiction which proposes to impair a certain property to components of a technical system or its subsystem while the whole system will possess an opposite property.			General TRIZ, ARIZ	Разделение противоречивых требований в структуре		
Separation of Contradicting Demands in Time	A method of separating two contradicting demands involved to a physical contradiction which proposes to provide meeting of the conflicting demands during different time intervals.			General TRIZ, ARIZ	Разделение противоречивых требований во времени		
Separation Principle	A description of a particular method of resolving two contradicting demands.			General TRIZ, ARIZ	Прием разделения противоречивых требований		
Similar Functions	Functions with similar objects and/or actions.			General TRIZ	Схожие функции		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Size-Time-Cost Operator	A method and a technique which proposes to reduce psychological inertia to come up with innovative solutions while solving an inventive problem by either radical increase or decrease of one of three parameters of a technical system or a material object: size, time costs.			TRIZ Tools	Оператор РВС	STC Operator	Dimensions-Time-Cost Operator (DTC Operator)
Solution Direction	Identification of a particular way or a method of solving an inventive problem.			General TRIZ	Направление решения		
Spatial Geometry Operator	A method which introduces a number of principles of innovative improvement of technical systems based on transformation of geometric shapes to enable a better use of resources available in a technical system or its supersystem.			General TRIZ	Пространственный геометрический оператор		Geometry Evolution Operator
Special Term	A specific word which describes either a material object, or a system, or a function, or property, or an attribute within the context of its specific application.			General TRIZ, ARIZ	Специальный термин (спецтермин)		
Stagnation Zone	A part of a flow in which the flow stops temporarily or permanently. A Stagnation Zone is a typical disadvantage identified by Flow Analysis.			Flow Analysis	Застойная зона		
Standard Inventive Problem	An inventive problem whose model matches one of the predefined Inventive Problem Models described in the TRIZ Problem Solving Tools (primarily Inventive Standards) and TRIZ Knowledge Bases and which can be solved directly with their use.			General TRIZ, Inventive Standards, ARIZ	Стандартная изобретательская проблема		Typical Problem
Standard Solution for Solving Inventive Problems	see Inventive Standard			Inventive Standards	Стандарт (на решение изобретательских задач)		1) Inventive Standard, 2) Standard Solution

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Step back from Ideal Final Result	A technique which proposes to formulate the Ideal Final Result and then consider if it is possible to reach the goal desired by achieving slightly less then it would be required to reach the Ideal Final Result in full.			ARIZ	Шаг назад от ИКР		
Subject - Action - Object	A triad which identifies a Function Carrier, its specific Function, and Target Object.			Function Analysis and Modeling	Субъект - Действие - Объект		
Substance	Type of discrete matter which possesses rest mass. Substance can be in gaseous, liquid, solid and plasma states. In certain cases and TRIZ Tools, the term "substance" can be considered in a broader sense, for example, a material component or an assembly of material components can be called "substance" in the Inventive Standards or ARIZ.	1) Water, 2) Sand, 3) Oxygen, 4) Concrete, 5) A cutting tool, 6) A brick.	In Substance-Field Analysis and Inventive Standards the use of the term "substance" is not limited to describing types of materials only. It can be a part of technical system of the entire technical system.	General TRIZ, Substance-Field Analysis, Inventive Standards	Вещество		
Substance-Field Analysis	A method of abstract symbolic modeling of a technical system or a part of the technical system (sometimes in combination with a part of its supersystem) in terms of substance components, fields, and physical interactions between them.		1. In Substance-Field Modeling the use of the term "substance" is not limited to describing types of materials only. It can be a part of technical system of the entire technical system.	TRIZ Tools	Анализ вепольный (вепанализ)		1) S-Field Analysis, 2) Su-Fi Analysis.
Substance-Field Resource	Substances, fields, and their properties and parameters that belong to a technical system under analysis or to its supersystem and that can be used to solve a problem or realize a new function.			General TRIZ, ARIZ, Inventive Standards	Веществено-полевые ресурсы		
Subsystem	A component or a set of interacting components limited by specific borders that belong to a technical system. Both a separate material object and a larger system's part combining several components (material objects) can be regarded as a subsystem.			General TRIZ, Multi-Screen Diagram of Thinking	Подсистема		Sub-system

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Subversion Analysis	A method and a technique for understanding causes of a problem expressed in terms of a negative or undesired effect by inverting the way the problem analysis is performed: instead of attempts to reveal causes of the negative or the undesired effect the process is set up as to explore how to create the negative or undesired effect under conditions and constraints given.			TRIZ Tools	Диверсионный анализ		
Su-Field	A model of a minimal technical system which consists of two components made of substance and a field providing interaction between the substance components. A minimal complete Su-field is presented graphically as a triangle with symbolic nodes depicting the two substances, the field, and lines between the nodes depicting interactions between the components. Any technical system can be considered either as a single or as a network of Su-fields. A special type of Su-Fields is known as “Measurement Su-Field” which might include only one substance component.		The term "substance" is a Su-Field can have a broad meaning: it can be both a specific material (e.g. "water") as well as a component of a technical system (e.g. "chain").	Substance-Field Analysis, Inventive Standards	Веполь		1) S-Field, 2) Su-Fi, 3) Vepol
Su-Field Component	Any Substance or a Field presented as a part of a particular Su-Field.			Substance-Field Analysis, Inventive Standards	Элемент веполя		Su-field element
Su-Field Decomposition	A change of a Su-Field given by eliminating an interaction that provides a negative effect (negative interaction).			Substance-Field Analysis, Inventive Standards	Разрушение веполя		Su-field break-up, 2) Su-Field destruction
Su-Field Diagram	A graphic presentation of Su-Field in shape of triangle with nodes representing two substances and a field and lines between the nodes representing interactions between the Su-Field components. The number of nodes and lines may vary.			Substance-Field Analysis, Inventive Standards	Графическое изображение веполя		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Su-Field Formula	See Su-Field Diagram.			Substance-Field Analysis, Inventive Standards	Вепольная формула		
Super-Effect	An unexpected additional useful benefit that emerges as a result of solving an inventive problem whose definition did not include the requirement to obtain such the benefit.			General TRIZ	Сверх-эффект		
Super-Effect Discovery	A process of discovering a Super-Effect.			General TRIZ	Обнаружение сверх-эффекта		Super-Effect Identification
Supersystem	A system that includes a technical system given as its part (sub-system).			General TRIZ, Multi-Screen Diagram of Thinking	Надсистема		1) Super-system, 2) Higher System
Synthesis of Su-Field Systems	A group of methods of solving inventive problems by adding new substances and fields to existing Su-Fields. These methods are presented by relevant Inventive Standards in the System of Inventive Standards.			Substance-Field Analysis, Inventive Standards	Построение вепольных систем		
System Complexity	A relative dimensionless measure which identifies a number of processes within a technical system which are used to deliver the system's functionality.			General TRIZ	Сложность системы		
System Conflict	See Technical Contradiction						1) Engineering Contradiction 2) Contradiction of demands

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
System of Inventive Standards	A collection of 76 Inventive Standards which includes five classes of Inventive Standards categorized in accord with the type of inventive problems the Inventive Standards can deal with: 1) Completion and Decomposition of Su-Fields, 2) Evolution of Su-Fields, 3) Transition to Macro- and Micro-Levels, 4) Measurement and Detection Su-Fields, 5) Application of Inventive Standards.		Currently, the System of Inventive Standards contains 76 Inventive Standards. There are proposals to extend the System of Inventive Standards with newly described Inventive Standards.	Substance-Field Analysis, Inventive Standards	Система изобретательских стандартов		A System of Standard Inventive Solutions
System Operator	see Multi-Screen Diagram of Thinking.			TRIZ Tools	Оператор системный		
System Quality	A property or a function that may only be obtained by combining two or more material objects or components to a system and may not be obtained on the basis of a single material object or a single component.			General TRIZ	Системное качество		
System S-Curve	An S-curve presenting evolution of a specific technical system or its subsystem based on the same operational principle.	S-curve of evolution of a hammer based exclusively on a mechanical principle.		General TRIZ, TRIZ Trends of Technical Systems Evolution	S-образная кривая технической системы		
Systematic Innovation	A framework which combines various theories, methods and tools based on a systematic approach to support innovative process from the initial situation analysis towards developing patentable solutions.			General TRIZ	Системные инновации		
Systematic Technology Evolution	A hypothesis which states that evolution of majority of technical systems is governed by the same principles and patterns irrespectively an engineering domain or a technology area. Systematic Technology Evolution includes models of technical systems evolution (such as S-Curve and Bell-Curve of Evolution) and a collection of more specific Trends and Lines of Technical Systems evolution.			General TRIZ, TRIZ Trends of Technical Systems Evolution	Системное развитие техники		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Talented Thinking	A type of thinking based on a systemic view which is capable of producing breakthrough ideas and following the consequences of implementation of such ideas.		As noted by G. Altshuller, talented thinkers use the Multi-Screen Diagram of Thinking during their reasoning processes either consciously or unconsciously	Theory of Creative Individual Development	Талантливое мышление		
Target Component	An object that must be changed or preserved.			Function Analysis and Modeling	Целевой компонент		
Target Disadvantage	A disadvantage in the analyzed technical system, the elimination of which is the goal of a project.			General TRIZ	Целевой недостаток		
Technical Conflict	see Technical Contradiction			General TRIZ, Contradiction Matrix, ARIZ	Конфликт, технический		
Technical Contradiction	A situation which emerges when an attempt to solve an inventive problem by improving a certain attribute (parameter) of a technical system leads to unacceptable degradation of another attribute (parameter) of the same system.	Improving the strength (one parameter) of the airplane wing leads to the increased weight (another parameter) of its wing.		General TRIZ, Contradiction Matrix, ARIZ	Техническое противоречие		
Technical Effect	A specific engineering solution that can provide a delivery of an technical function in various technology areas.			Catalogues of Effects	Технический эффект		
Technical Function	A specific type of a function which deals with an attribute of a technical system or its supersystem.	1) Change temperature, 2) Measure distance, 3) Accumulate heat.		General TRIZ, Catalogues of Effects, Function Analysis and Modeling	Техническая функция		
Technical Parameter	see Engineering Parameter				Технический параметр		
Technical System	A number of components (material objects) that were consciously combined to a system by establishing specific interactions between			General TRIZ	Техническая система		1) Engineering System, 2)

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	the components. A technical system is designed, developed, manufactured, and assigned to perform a controllable main useful function or a number of functions within a particular context. A technical system can include subsystems which can be considered as separate technical systems.						Technological System
Technological Process	A process that uses material objects, such as raw materials, equipment, tools, energy, parts, assemblies, people, etc., to create or modify a product.			General TRIZ	Технологический (производственный) процесс		Manufacturing Process
Technology Evolution	see Evolution of Technical Systems			General TRIZ, TRIZ Trends of Technical Systems Evolution	Эволюция техники		
Technology S-Curve	An S-curve presenting a number of more specific S-curves demonstrating evolution of different means based on different operational principles to provide the same main parameter of value.	S-curve of evolution of a hammer technology including various operation principles of the hammer's head: mechanical, hydraulic, electromagnetic.		General TRIZ, TRIZ Trends of Technical Systems Evolution	S-образная кривая технической области		
T-Field	A Su-Field in which one of components is subjected to the action of thermal field.			Substance-Field Analysis, Inventive Standards	Теполь		
The Bank of Worthy Goals	A database of specifically expressed goals that would considerably contribute to the development of society and solving large-scale problems once achieved.	1) To find a cure for cancer, 2) To develop means for instant transportation.		General TRIZ, Theory of Creative Individual Development	Фонд Достойных Целей		
Theory of Creative Individual Development	A theory which studies development of creative skills, behavior and life strategy of an individual on the basis of analysis of a vast massive of documents presenting biographies of talented creative thinkers and inventors with a special focus on how a creative person solves problems he or she faces during lifetime.		Often, abbreviation "TRTL" is used derived from the Russian term "Teorya Razvitiya Tvortcheskoi Litchnosty" written in Latin letters.	General TRIZ	Теория Развития Творческой Личности (ТРТЛ)	TRTL	Theory of Creative Personality Development

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Theory of Technical Systems Evolution	A theory which emerged during evolution of TRIZ and which studies models of evolution of technical systems as well as laws, trends and lines of the technical systems evolution.			General TRIZ	Теория Развития Технических Систем (ТРТС)	TESE	TRTS
Theory of Inventive Problem Solving	A scientific and applied discipline which comprises studying directions of technical systems evolution and a process of inventive problem solving in order to develop methods and tools to support innovative improvement of the technical systems based on a systematic and knowledge-based approach. Lately, the TRIZ studies and developments have been extended to non-technology areas, such as business, social, and other types of artificial systems.		1) In the first translations from Russian to English, TRIZ was translated as TIPS. 2) The abbreviation "TRIZ" is the Russian acronym for the “Theory of Inventive Problem Solving” (Origin: "Теория Решения Изобретательских Задач" or "Teorya Reshenya Izobretatelskyh Zadatch", in Latin letters")	General TRIZ	Терия Решения Изобретательских Задач	TRIZ	
Tool (In ARIZ)	A component of a technical system that delivers a function targeted at another component of the system with a goal to realize a main purpose of a technical system given or its part.			Function Analysis and Modeling	Инструмент		
Tool (In Trends of Technology Evolution)	see Working Unit			Trends of Technical Systems Evolution	Инструмент		
Transformable Substance	A substance (usually presented by a material) that can be transformed in order to obtain new properties required for solving a problem by subjecting the substance to external action.	A liquid substance converts to gaseous when heated to certain degree.		Inventive Standards	Модифицируемое вещество		
Transition to Macro-Level	A method of solving an inventive problem or directly evolving a technical system by either 1) increasing a number of components or interactions forming the system, or 2) forming bi- and poli-systems, or 3) assigning dual properties to the system.			Trends of Technical Systems Evolution	Переход на макроуровень		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Transition to Micro-Level	A method of solving an inventive problem or evolving a technical system by replacing an operational principle behind its subsystem with a new principle that utilizes properties of micro-scale material objects: fragmented substances, molecules, particles, or fields.			Trends of Technical Systems Evolution	Переход на микроуровень		
Transmission	One of the key components (subsystems) of a Complete Technical System which according to the Law of System Completeness of a technical system transmits a flow of energy required to operate a working unit from an engine to the working unit.			Trends of Technical Systems Evolution	Трансмиссия		
Transport Function	A Providing Function that changes a position of its Object in space.			Function Analysis and Modeling	Транспортная функция		
Trend of Energy Conductivity	A direction of evolution of technical systems which states that any technical system must provide full energy conductivity throughout the system to become viable and later tends to decrease the number of energy losses within the system.		In Classical TRIZ, the term is known as “Law of Energy Conductivity”	Trends of Technical Systems Evolution	Закон "энергетической проводимости" системы		
Trend of Technical Systems Evolution	A generic pattern representing a common direction of technical systems evolution through a range of successive transitions of a technical system from one state to another according to a certain domain-independent criteria.		Some Trends of Technical Systems Evolution include more specific Lines of Technical Systems Evolution defined according to more narrow criteria.	Trends of Technical Systems Evolution	Законы Развития Технических Систем		Trends of Technology Evolution
Trend of Evolution along the S-curve	A direction of evolution of technical systems which states that every technical systems tends to evolve along the S-curve of evolution.		In Classical TRIZ, the term is known as “Law of Evolution along the S-curve“	Trends of Technical Systems Evolution	Закон S-образного развития		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Trend of Harmonization of Rhythms	A direction of evolution of technical systems which states that technical systems tend to harmonize rhythms of their components during evolution.		In Classical TRIZ, the term is known as “Law of Harmonization of Rhythms“	Trends of Technical Systems Evolution	Закон согласования ритмики частей системы		1) Law of Matching Rhythms, 2) Law of Frequencies Coordination
Trend of Increasing the Degree of Technical System Completeness and Decreasing Human Involvement	A direction of evolution of technical systems which states that any technical systems tends to increase a number of functions delivered within the system or by the system that do not require presence or involvement of a human operator.		In Classical TRIZ, the term is known as “Law of Increasing the Degree of Technical System Completeness and Decreasing Human Involvement“	Trends of Technical Systems Evolution	Закон повышения полноты технической системы и вытеснения из неё человека		
Trend of Increasing The Degree of Substance-Field Interactions	A direction of evolution of technical systems which states that every technical system tends to increase a number of substances, fields and interactions between them during evolution.		In Classical TRIZ, the term is known as “Law of Increasing The Degree of Substance-Field Interactions“	Trends of Technical Systems Evolution	Закон увеличения степени вепольности		
Trend of Increasing the Degree of System's Ideality	A direction of evolution of technical systems which states that every technical systems tends to increase the degree of its ideality during evolution.		In Classical TRIZ, the term is known as “Law of Increasing the Degree of System's Ideality“	Trends of Technical Systems Evolution	Закон увеличения степени идеальности системы		
Trend of Non-Uniform Evolution of System's Parts	A direction of evolution of technical systems which states that subsystems of any technical systems tend to develop non-uniformly during evolution. The more complex a technical system is the greater degree of non-uniformity is observed.		In Classical TRIZ, the term is known as “Law of Non-Uniform Evolution of System's Parts“	Trends of Technical Systems Evolution	Закон неравномерности развития частей системы		
Trend of System Completeness	A direction of evolution of technical systems which states that to become a technical system, at least four key components (subsystems) must be combined to a system: Engine, Transmission, Control Unit, and Working Unit while each of these components have to provide a relevant function.		In Classical TRIZ, the term is known as “Law of System Completeness“	Trends of Technical Systems Evolution	Закон полноты частей системы		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Trend of Transition to Micro-level	A direction of evolution of technical systems which states that evolution of a operational principle behind a working unit of any technical systems tends to utilize properties of more fragmented substances, molecules, particles, or fields over the time.		In Classical TRIZ, the term is known as “Law of Transition to Micro-level“	Trends of Technical Systems Evolution	Закон перехода с макроуровня на микроуровень		
Trend of Transition to Super-system	A direction of evolution of technical systems which states that every technical systems tends to become a part of a supersystem if conditions demand the system to evolve further but internal resources on the basis of which the system could have been evolved are exhausted. After transition to Super-system the system ceases to be an independent system and becomes a subsystem of a larger system.		In Classical TRIZ, the term is known as “Law of Transition to Super-system“	Trends of Technical Systems Evolution	Закон перехода в надсистему		
Trends of Cinematic	A group of Trends of Technical systems Evolution which are observed independently from specific technological and physical factors that produce impact on evolution of a technical system: 1) Trend of Increasing the Degree of System's Ideality, 2) Trend of Non-Uniform Evolution of System's Parts, 3) Trend of Transition to Super-system.		In Classical TRIZ, the term is known as “Laws of Cinematic“	Trends of Technical Systems Evolution	Законы кинематики		
Trends of Dynamics	A group of Trends of Technical Systems Evolution which imply that evolution of every technical system depends on specific technological and physical factors that produce impact on evolution of a technical system: 1)Trend of Increasing The Degree of Substance-Field Interactions, 2) Trend of Transition to Micro-level, 3) Trend of Increasing the Degree of Technical System Completeness and Decreasing Human Involvement.		In Classical TRIZ, the term is known as “Laws of Dynamics“	Trends of Technical Systems Evolution	Законы динамики		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Trends of Technical Systems Evolution Analysis	An analytical tool that identifies the directions of development of a technical system related to the Trends of Technical Systems Evolution.			Trends of Technical Systems Evolution	Анализ по законам развития технических систем		Evolutionary Potential Analysis
Trends of Technical Systems Evolution	A collection of TRIZ Trends of Technical Systems Evolution. Classical TRIZ presents 11 trends, 9 of which are categorized to three groups: 1)Trends of Statics, 2) Trends of Cinematic, 3) Trends of Dynamics, and two trends are considered independent.		1) In addition to 9 classical TRIZ Trends of Evolution defined by G. Altshuller, contemporary developers of TRIZ offer a number of additional trends that are not included to this Glossary. 2)The term "TRTS" is an abbreviation of the Russian term "Teorya Razvitiya Tekhnitcheskykh Sistem" written in Latin letters.	Trends of Technical Systems Evolution	Законы развития технических систем		TRTS
Trends of Statics	A group of Trends of Technical Systems Evolution which are observed during the early stages of evolution of a technical system: 1) Trend of System Completeness, 2) Trend of Energy Conductivity, 3) Trend of Harmonization of Rhythms.		In Classical TRIZ, the term is known as “Laws of Statics“	Trends of Technical Systems Evolution	Законы статики		
Trimming	A method and a technique for improvement of a technical system by removing (trimming) certain components and redistributing their useful functions among the remaining system or supersystem components while preserving quality and performance of the system.			TRIZ Tools	Свертывание		Simplification
Trimming Condition	An option for eliminating a component of a technical system by either eliminating its useful function or redistributing its useful functions to other system components.			Trimming	Условие свертывания		
Trimming Model	A model of an improved technical system developed through Trimming.			Trimming	Модель свертывания		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Trimming Problem	A problem that must be solved to realize the Trimming Model.			Trimming	Задача свертывания		
Trimming Rule	see Trimming Condition			Trimming	Правило свертывания		
TRIZ Instrument	see TRIZ Tool			General TRIZ	Инструмент ТРИЗ		
TRIZ Knowledge Bank	A collection which includes databases containing high-level patterns, heuristics, best practices, and case studies discovered and described as a result of research performed in TRIZ. Currently the TRIZ Knowledge Bank consists of databases of Inventive Principles, Inventive Standards, Scientific Effects, Technological Effects, Trends and Lines of Evolution, Analogous Problems and Solutions.			General TRIZ	Фонд информационный		
TRIZ Knowledge Base	A database which contains high-level patterns and heuristics supporting inventive problem solving discovered as a result of research performed in TRIZ.			General TRIZ			
TRIZ Postulate	A statement which describes a particular fundamental reason on the basis of which TRIZ is being developed. The following TRIZ Postulates are known: 1) Theoretical basis of TRIZ is formed by the Trends of Technical Systems Evolution, 2) the Trends of Technical Systems Evolution can be revealed, studied and used in practical inventive problem solving to avoid numerous trials and errors; 3) A primary TRIZ Trend of Technical Systems Evolution of is the Trend of Increasing the Degree of Ideality; 4) A process of solving an inventive problem can be considered as a process of identification and resolving of a contradiction.			General TRIZ	Постулат ТРИЗ		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
TRIZ Process	A specification of phases and steps with indication of the TRIZ Tools to be used to achieve the goals of a specific inventive process. There are might be different phases, steps and TRIZ Tools included to a specific TRIZ process depending on a type of Innovative Task.			General TRIZ	ТРИЗ-процесс		
TRIZ School	Usually an informal training, research and development center in a certain geographic location that provides (or provided in the past) significant contribution to the development of TRIZ theories, methods and tools.	St. Petersburg TRIZ School, Krasnoyarsk TRIZ School, Kishinev TRIZ School, etc.	Most of the TRIZ Schools were founded in the cities of the former USSR.	General TRIZ	Школа ТРИЗ		
TRIZ Technique	see TRIZ Tool			General TRIZ	Инструмент ТРИЗ		TRIZ Tool
TRIZ Tool	A technique based on a specific approach which describes a number of procedures to support one or another phase of the TRIZ Process. Some TRIZ tools include databases of abstract solution patterns, such as the System of 76 Inventive Standards.			General TRIZ	Инструмент ТРИЗ		TRIZ Technique
TRIZ-Based Evolution Forecast	A process of short- or a long-term forecasting and roadmapping further evolution of a technical system given based on using the analytical and problem solving TRIZ tools in combination with TRIZ Knowledge Bases. In addition to the TRIZ Tools and Knowledge Bases, during the process of TRIZ-Based Evolution Forecast external knowledge sources are extensively used from different knowledge areas.			General TRIZ, TRIZ Trends of Technical Systems Evolution	Прогноз		1) Prediction 2) TRIZ-based Innovation Roadmapping
TRIZ-Pedagogy	TRIZ-Pedagogy, which combines Project-based learning and Problem-based learning approaches, is conducted in a dynamic classroom in which students actively explore real-world interdisciplinary, open-ended type problems and challenges and acquire a deeper knowledge about the environment. It			General TRIZ, Theory of Creative Individual Development	ТРИЗ-Педагогика		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	also teaches students the worldwide recognized methods of searching for new ideas, primarily on the basis of TRIZ, the Theory of Inventive Problem Solving. TRIZ provides TRIZ-Pedagogy with main content (or, more precisely, certain elements of TRIZ are adapted to didactic goals, as appropriate for different age peculiarities) as well as with the methodology for the development of the theory and practice of TRIZ-Pedagogy. The goal of TRIZ-pedagogy is to nurture the Creative Individual, who possesses productive (creative, critical, systemic) thinking skills and productive character (social and communication skills, as well as the desire for continual improvement). The main tasks: to involve the child into the process of intellectual creativity, to provide a positive experience with creativity, to equip with the tools for cognition and improvement of the environment, to develop imagination.						
Typical Conflict	see Typical Contradiction		ARIZ-85C includes a list of 10 typical conflicts	ARIZ	Типовой конфликт		1) Typical Contradiction, 2) Standard Contradiction
Typical Technical Parameter	A technical parameter that is supposed to generalize over a number of more specific technical parameters. A limited set of the pre-defined generalized parameters that typically need improvement in the technical systems, is used in the Contradiction Matrix.		The original Altshuller's Matrix includes a list of 39 typical parameters.	Contradiction Matrix	Типовой параметр		
Undesired Effect	A result which occurs during functioning of a technical system and which leads to either decrease of the degree of ideality of the system and its perceived value or produces a			General TRIZ, Cause and Effect Chain Analysis, Root-Conflict Analysis	Нежелательный эффект		

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
	negative impact on a product or the rest of the supersystem.						
Useful Function	A physical action performed by an object - function carrier that results in a positive (required) change or preservation of a value of a parameter or a state of an object of the function.			Function Analysis and Modeling	Полезная функция		
Value	A ratio between the performance of main parameters of value and price.			Function Analysis and Modeling	Ценность		
Value of Main Parameter of Value	The relationship between performance of main parameters of value of a technical system and its market price.			General TRIZ	Значение главного параметра ценности		
Vector of Psychological Inertia	A direction of searching for a solution to an inventive problem within a limited part of the solution search space which is usually chosen unconsciously by a problem solver based on his personal experience, knowledge, and associations without using any structured or systematic methods of search.			Creative Imagination Development	Вектор психологической инерции		
Vepol	see Su-Field		Russian abbreviation of "*Ves*hchestvo – *Pol*e Model" ("Substance-Field Model")	Substance-Field Analysis, Inventive Standards	Веполь		
Void	A part of space that is not occupied by solid substance.	A part of space filled with gas can be considered as void.		ARIZ	Пустота		
Working Unit	One of the key components (subsystems) of a Complete Technical System that, according to the Law of System Completeness performs a function acting on a product for which the technical system has been developed.			Trends of Technical Systems Evolution	Рабочий орган		1) Tool, 2) Operating Tool

Term	Meaning	Example(s) where important	Comment(s)	Categories where the term is used most frequently	Russian Term	Abbreviation	Synonyms or alternative translations
Worsening Parameter	A typical technical parameter whose value of an attribute changes negatively as a result of a change proposed to solve a problem.			Contradiction Matrix	Ухудшающийся параметр		1) Worsening Feature, 2) Worsening Parameter, 3) Negative Parameter.
Working Principle	see Operational Principle				Принцип действия		
Worthy Goal	A goal that is set up by a creative person that he/she would like to achieve. There are a number of features which identify the worthy goal, for example: a) novelty, b) social value, c) independence, d) scale, e) practicality, f) heresy g) impossibility to achieve at a given moment of time. The worthy goal has to mean a certain specific result with a large technological and social impact rather than an abstract wish.	The goal "to make life better" cannot be considered as a worthy goal while the goal "to develop a method for interstellar travel" can be considered as worthy.		Theory of Creative Individual Development	Достойная цель		Ultimate Goal
X-Component	An unknown entity that must provide a specific change in a technical system (e.g., change in its components, parameters, physical states, chemical composition, etc.) that should be incorporated into the system in order to solve a problem.			ARIZ	Икс-элемент		1) X-Element, 2) X-Factor
X-Element	See X-component						1) X-Component, 2) X-Factor