



TRAINING COURSES IN TRIZ, xTRIZ, SYSTEMATIC INNOVATION, AND CREATIVE IMAGINATION DEVELOPMENT

SYNOPSIS AND CONTENTS

ICG TRAINING & CONSULTING
WWW.XTRIZ.COM

TRIZ TRAINING INTERNATIONAL CENTRE



COURSES

Code	Course	Hours	Content	Level	Comments
C1	Introductory: TRIZ for Technology and Engineering	8	Introduction to TRIZ: background and philosophy; key TRIZ concepts; Problem diagnostics; Contradiction Matrix and Inventive Principles; Basic TRIZ process.	Beginners	Learning and practicing in groups with educational problems
C2	Introductory: TRIZ for Business and Management	8	Introduction to TRIZ: background and philosophy; key TRIZ concepts; Problem diagnostics; Contradiction Matrix and Inventive Principles; Basic TRIZ process.	Beginners	Learning and practicing in groups with educational problems
C3	Basic: TRIZ for Technology and Engineering	24 (+16)	Introduction to TRIZ: background and philosophy; key concepts; Basic TRIZ process; Root Conflict Analysis (RCA+); Contradiction Matrix and Inventive Principles; Function Analysis; Inventive Standards.	Beginners, or after C1 training	Learning and practicing in groups with real problems
C4	Advanced: TRIZ for Technology and Engineering	40	TRIZ Processes and Roadmap; Function Analysis; Inventive Standards, ARIZ; Trends of Technology Evolution, Evolutionary Potential Analysis, Value-Conflict Mapping	After C1 or C2 training	Learning and practicing in groups with real problems
C5	Specialist: TRIZ for Technology and Engineering	80	Project-based mastering skills with advanced TRIZ: RCA+; Inventive Standards and ARIZ in depth; Trends of Technology Evolution, Evolutionary Potential Analysis, Value-Conflict Mapping; Multi-Screen Analysis, teamwork, train-the-trainer programs	After C3 training and 0.5-2 years of experience. Includes learning specific aspects and focuses on project work	Learning and practicing by each participant within own projects
C6	Basic TRIZ for Business & Management	16 (+8)	Basic TRIZ for Business and Management; problem formulation with RCA+; Inventive Principles for Business and Management.	Beginners	Learning and practicing in groups with small problems
C7	Advanced: TRIZ for Improving Business Systems	32	Trends of System Evolution and Value-Conflict Mapping. Focus on innovative business systems through analysis and business systems innovation in a systematic way.	Beginners or after C6 training	Learning and practicing in groups with real problems
C8	Creative Imagination Development	12	Introduction and learning techniques to systematically develop creative imagination	Beginners of after any other training	Learning and practicing in groups

C9	Root-Conflict Analysis (RCA+)	8	Introduction and practice with RCA+ and methods for conflict resolution	Beginners of after any other training	Learning and practicing in groups with real problems
C10	Value-Conflict Mapping (VCM)	8	Introduction and practice with VCM	Beginners of after any other training	Learning and practicing in groups with real cases
C11	Systematic Business Model Innovation	8	A systematic approach to innovating business models.	Beginners of after any other training	Learning and practicing in groups with real cases
CX	Customized	TBD	A program and duration are defined depending on customer's previous experience, needs, demands and expectations. Separate courses can be arranged on RCA+, Trends of Evolution, Value-Conflict Mapping, Function Analysis, specific TRIZ techniques.	Can be both for beginners and advanced users	Can include both beginner and advanced level participants, e.g. learning some specific tool/technique in depth
CY	Follow-up facilitative training/coaching	TBD	After each type of course (apart from C1 and C5) facilitation of specific innovative projects can be arranged. The length of a project is identified according to the conditions of the project.	After an adequate course	Includes facilitative training/coaching of customer's teams and individuals

DELIVERY OF OUR COURSES

Most of our courses are accredited by the International MATRIZ Association which grants certification based upon successful completion of the courses.

We offer our courses in form of public events, in-house events, and online training. For schedules and availability of public events please check <http://www.xtriz.com/Training/>

For online courses, please check http://www.xtriz.com/Training/online_training.htm

We also can assist customer teams and individuals on establishing, managing and performing innovative projects and creative sessions.

As a part of our primary activities, we are continuously monitoring emergence of new ideas and methods in the areas of TRIZ and Systematic Innovation, and develop new tools and techniques to enhance TRIZ and Systematic Innovation. It gives us a possibility to offer training courses and run innovative sessions including the most recent developments.

Please check the following pages for more detailed descriptions and programs of our courses. We also provide more information on each course on request.

C1: AWARENESS COURSE: INTRODUCTION TO TRIZ & SYSTEMATIC INNOVATION FOR TECHNOLOGY AND ENGINEERING

Duration: 1 day

Format: Workshop. Practice in groups.

Certificate: TRIZ Training International Centre: Accomplishment

Target Audience

Everyone who wants to expand creative skills by adding systematic approach to the process and use patterns of strong thinking: business and technology managers, team leaders, business analysts, management consultants, consultants in quality and innovation, productivity consultants, students of business and management disciplines, problem solvers, strategists.

Previous experience with TRIZ is not required.

Synopsis

This introductory course provides an overview of modern TRIZ and Systematic Innovation to help participants with understanding what value the methods can bring to them individually and to their organizations.

In addition to learning about philosophy, key concepts, process, techniques and tools of Systematic Innovation, the participants acquire the beginner's practical skills of working with some TRIZ and Systematic Innovation techniques, such as problem diagnostics, extracting root conflicts, representing problems as contradictions and using Contradiction Matrix and Inventive principles to generate new ideas. The course is intensive and includes practicing in groups on solving real problems.

Contents

- Introduction to the background and overview of TRIZ and Systematic Innovation
- System thinking instead of random search for solutions.
- Basic concepts of TRIZ: Ideality, Resources and Contradictions.
- TRIZ Tools and Techniques to solve inventive problems.
- A roadmap to the process of TRIZ and Systematic Innovation.
- Overview of tools and techniques of TRIZ and Systematic Innovation.
- Introduction to contradiction definition technique to analyze problem situations, decompose complex situation, and create structured problem maps.
- Contradiction Matrix and Inventive Principles for generating new ideas.
- Practice with Contradiction Matrix and Inventive Principles.
- Questions and answers.

All material is learned via lectures and practice in groups

Courseware: Course slides; reference materials, DVD with courseware.

C2: AWARENESS COURSE: INTRODUCTION TO TRIZ & SYSTEMATIC INNOVATION FOR BUSINESS AND MANAGEMENT

Duration: 1 day

Format: Workshop. Practice in groups.

Certificate: TRIZ Training International Centre: Accomplishment

Target Audience

Everyone who wants to learn the ability to expand his creative skills by adding systematic approach to the process and use patterns of strong thinking: engineers eager to innovate; manufacturing professionals, R&D professionals, new product development professionals and managers, new business development managers, marketing & engineering professionals.

Previous skills with TRIZ are not required.

Synopsis

This introductory course provides an overview of modern TRIZ and Systematic Innovation to help participants with understanding what value the methods can bring to them individually and to their organizations.

In addition to learning about philosophy, key concepts, process, techniques and tools of Systematic Innovation, the participants acquire the beginner's practical skills of working with some TRIZ and Systematic Innovation techniques, such as problem diagnostics, extracting root conflicts, representing problems as contradictions and using Altshuller Matrix and Inventive principles to generate new ideas. The course is intensive and includes practicing in groups on solving real problems.

Contents

- Introduction to the background and overview of TRIZ and Systematic Innovation
- System thinking instead of random search for solutions.
- Basic concepts of TRIZ: Ideality, Resources and Contradictions.
- TRIZ Tools and Techniques to solve inventive problems.
- A roadmap to the process of TRIZ and Systematic Innovation.
- Overview of tools and techniques of TRIZ and Systematic Innovation.
- Introduction to contradiction definition technique to analyze problem situations, decompose complex situation, and create structured problem maps.
- Altshuller Matrix and Inventive Principles for generating new ideas.
- Practice with Altshuller Matrix and Inventive Principles.
- Questions and answers.

All material is learned via lectures and practice in groups

Courseware: Course slides; reference materials, DVD with courseware.

C3: BASIC TRIZ & SYSTEMATIC INNOVATION FOR TECHNOLOGY AND ENGINEERING

Duration: 3 days, can be added with 2 days of practice. (total 24 or 40 hours)

Format: Workshop. Practice in groups.

Certificates: TRIZ Training International Centre: TRIZ Practitioner, Basic Level. MATRIZ Certificate Level 1.

Target Audience:

Everyone who wants to expand creative skills by adding systematic approach to the process and use patterns of strong thinking: engineers; manufacturing professionals, R&D professionals, new product development professionals and managers, new business development managers, marketing & engineering professionals.

Previous skills with TRIZ are not required.

Synopsis

This intensive course targets at those who are willing to acquire innovative skills with TRIZ and Systematic Innovation and master its basic tools at practical level. The course does not require participants to know TRIZ and Systematic Innovation.

The course helps acquiring practical skills in basic Systematic Innovation and combines intensive learning with working on real-life projects brought by the course participants. During the course, the participants learn the process of basic Systematic Innovation and techniques which help solving a broad range of problems: Root Conflict Analysis, Inventive Principles, Guide to Effects, introduction to the Trends of Technology Evolution, ideas evaluation techniques. The course also includes overview of how most correctly implement Systematic Innovation within the organization and software tools that support TRIZ and Systematic Innovation. The three days of learning and practicing are usually added with two days of facilitative coaching that helps to fix the acquired during the course skills.

Contents

- ❑ Introduction to the background and overview of modern TRIZ and Systematic Innovation
- ❑ Basic concepts of TRIZ: Ideality, Resources, Contradictions, Trends of Technology Evolution.
- ❑ Fighting psychological inertia and creative imagination development.
- ❑ Multi-Screen Diagram of Thinking and Resources.
- ❑ Ideal Final Result. Problem Solving with Ideal Final Result. Resources.
- ❑ *Practice with Ideal Final Result.*
- ❑ Basic TRIZ Process: steps, techniques, income, outcome.
- ❑ A roadmap to the basic process of Systematic Innovation.
- ❑ Problem Perception Mapping.
- ❑ *Practice with Problem Perception Mapping.*
- ❑ Innovation Situation Analysis and Documentation.
- ❑ Root Conflict Analysis (RCA+) technique to present and decompose complex situation, extract root problems, and create problem maps.
- ❑ *Practice with Root Conflict Analysis.*
- ❑ 40 Inventive Principles and Contradiction Matrix for solving problems by eliminating contradictions and conflicts.
- ❑ *Practice with 40 Inventive Principles and Contradiction Matrix.*
- ❑ Databases of scientific and technological effects.
- ❑ Evaluation of ideas and Ideas Landscape.
- ❑ *Practice with evaluation of ideas and Ideas Landscape*
- ❑ Systematic use of TRIZ techniques, overview of advanced TRIZ techniques.
- ❑ Implementation of TRIZ and Systematic Innovation to ensure maximum success.

Courseware: Course slides; Course videos, reference materials, book "TRIZ: The Right Solution at the Right Time", course book "TRIZ Techniques and References", DVD with courseware.

C4: ADVANCED COURSE IN TRIZ & SYSTEMATIC INNOVATION IN TECHNOLOGY AND ENGINEERING

Duration: 5 days (40 hours)

Format: Workshop. Practice in groups and individual practice (during coaching).

Certificates: TRIZ Training International Centre: TRIZ Practitioner, Advanced Level. MATRIZ Certificate Level 2.

Target Audience

Everyone who already learned basic TRIZ tools and acquired basic skills with TRIZ for technological and engineering applications.

Previous skills with TRIZ are required of the beginner's level (Course C2 or similar level of TRIZ competence).

Synopsis

This advanced intensive hands-on course provides further learning and mastering practical skills with advanced TRIZ techniques. It is intended for those who spent at least 24 hours of basic course to TRIZ and are familiar with basic TRIZ techniques such as Contradiction Matrix and Inventive principles. The course explains the Theory of Technology Evolution, techniques for evolutionary potential assessment and technology forecast, and shows how to use them to solve specific problems and how to identify further directions of product/technology evolution.

The second part of the course combines practice with the Root Conflict Analysis (RCA+) technique to decompose a problem and identify physical and technical contradictions which comprise the problem, as well as explanation and practice with an improved version of ARIZ-85C (The Algorithm for Solving Inventive Problems).

During the course, the participants extensively work on problems brought by the participants.

The course is unique since it covers certain topics that are not available publicly yet, and which enhance the use of the existing TRIZ techniques.

Contents

- Fundamental background of advanced TRIZ: emergence and evolution of technical systems, ideality and resources.
- Function Analysis.
- *Practice with Function Analysis.*
- 76 Inventive Standards (standard solutions)
- *Practice with 76 Inventive Standards*
- Introduction to Algorithm of Solving Inventive Problems (ARIZ), detailed analysis of a problem solving process with ARIZ on the basis of specific cases.
- *Practice with the first parts of ARIZ.*
- TRIZ philosophy of solving inventive problems by further systems evolution
- Technology evolution: current system of trends of technology evolution, models of evolution, Ideality/Value Formula and strategies for product improvement.
- Functional Evolution of systems.
- Functional Trimming for developing more ideal technical systems.
- *Practice with Functional Trimming*
- Techniques for technology forecast: Evolutionary Potential Assessment.
- *Practice with Evolutionary Potential Assessment*
- *Practice with Trends of Technology Evolution* by real problem solving on the basis of projects brought by the participants.

All material is learned via lectures and extensive practice in groups.

Courseware: Course slides; Course videos, reference materials, book "TRIZ: The Right Solution at the Right Time", course book "TRIZ Techniques and References", DVD with courseware.

C5: SPECIALIST: TRIZ & SYSTEMATIC INNOVATION IN TECHNOLOGY AND ENGINEERING

Duration: 10 days (80 hours)

Format: Workshop. Practice in groups and individual coaching.

Certificates: TRIZ Training International Centre: TRIZ Practitioner, Advanced Level. MATRIZ Certificate Level 3.

Target Audience:

Everyone who learned basic and advanced TRIZ tools and acquired basic skills with TRIZ for technological and engineering applications as well as applied TRIZ tools and techniques to solve real problems, and wants to further expand and deepen understanding of TRIZ and Systematic Innovation.

Previous skills with TRIZ are required of the advanced level (64 hours of training, Courses C2-C3 or similar level of TRIZ competence).

Synopsis

This course provides in-depth learning and practicing with both classical and advanced TRIZ tools as well as several techniques of Systematic Innovation that were developed recently and proved to be successful. In addition to classical TRIZ, the course explains the processes of applying Systematic Innovation within different innovation strategies. The goal of the course is to learn TRIZ in depth, better understand TRIZ philosophy, and acquire advanced skill of working with TRIZ and Systematic Innovation tools and techniques under the guidance of an experienced trainer. Another goal of the course is to practice intensively and generate new ideas and solutions to projects which are brought by the participants to the class.

This course assumes that the participants have basic knowledge of TRIZ in volume of 64 hours as well as practical experience with TRIZ. Usually a program of the course can be customized depending on the skills of the participants.

Contents

- *In-depth practice with Function Analysis based on a real case.*
- *In-depth practice with ARIZ, Inventive Standards, Databases of Effects based on real cases.*
- Innovation Roadmapping and Evolution Trees.
- *In-depth practice with technical system evolution forecast based on a real case.*
- Value-Conflict Mapping for discovering strategic problems.
- *Practice with Value-Conflict Mapping.*
- Converting a research problem to inventive one.
- *Practice with converting and solving research problems.*
- Using TRIZ in non-technology areas.
- Implementation of Systematic Innovation; organization of Systematic Innovation process and sessions.

Extensive practice with every learned technique on the basis of the customer's projects

Courseware: Course slides; course book "TRIZ Techniques and References", DVD with courseware.

C6: BASIC TRIZ & SYSTEMATIC INNOVATION FOR BUSINESS AND MANAGEMENT

Duration: 2 days, can be added with one day of extensive practice (16 + 8 hours)

Format: Workshop. Practice in groups.

Certificates: TRIZ Training International Centre: TRIZ for Business and Management Practitioner, Basic Level. MATRIZ Certificate Level 1.

Target Audience

Everyone who wants to expand creative skills by adding systematic approach to the process and use patterns of strong thinking: Business and technology managers, human resource managers, team leaders, business analysts, management consultants, consultants in quality and innovation, productivity consultants, students of business and management disciplines, problem solvers, strategists.

Previous experience with TRIZ is not required.

Synopsis

This introductory course provides an overview of modern TRIZ and Systematic Innovation for Business and Management and to help the participants with understanding of value the methods can bring to them individually and to their organizations.

In addition to learning about philosophy, key concepts, process, techniques and tools of Systematic Innovation, the participants acquire the beginner's practical skills of working with some TRIZ and Systematic Innovation techniques, such as problem diagnostics, extracting root problems, representing problems as contradictions and using Conflict Separation Principles to generate new ideas.

The course is intensive and includes practicing in groups on real problems.

Contents

- Introduction to TRIZ
- Basic concepts of TRIZ: Ideality, Resources, Contradictions, Trends of Evolution.
- Basic TRIZ Process: steps, techniques, income, outcome; TRIZ roadmap.
- Problem Perception Mapping technique.
- *Practice with Problem Perception Mapping technique.*
- Root Conflict Analysis (RCA+) technique to present and decompose complex situation, extract root conflicts, and create problem maps.
- *Practice with Root Conflict Analysis (RCA+).*
- Formulating innovative business problems in terms of contradictions.
- Inventive Principles for solving problems by eliminating technical contradictions and conflicts.
- Exploring business model for resources.
- Contradiction Matrix technique for systematic access to Inventive Principles.
- *Practice: ideas generation with Contradiction Matrix for business and management and Inventive Principles.*
- Ideas Evaluation and Landscaping.
- *Practice: ideas evaluation and landscaping.*
- Evaluation of secondary problems.
- Overview of Advanced TRIZ techniques.

All material is learned via lectures and extensive practice in groups.

Courseware: Course slides; Course videos, Reference materials, course book "TRIZ Techniques and References for Business and Management", DVD with courseware.

C7: ADVANCED COURSE IN TRIZ & SYSTEMATIC INNOVATION FOR BUSINESS AND MANAGEMENT

Duration: 4 days (32 hours)

Format: Workshop. Practice in groups.

Certificates: TRIZ Training International Centre: TRIZ in Business and Management, Advanced Practitioner. MATRIZ Certificate Level 2.

Target Audience

Everyone who wants to expand innovative skills by adding systematic approach to the process and use patterns of strong thinking: Business and technology managers, human resource managers, team leaders, business analysts, management consultants, consultants in quality and innovation, productivity consultants, students of business and management disciplines, problem solvers, strategists. Previous experience with TRIZ is not required.

Synopsis

This course targets learning and mastering skills with modern TRIZ and Systematic Innovation for Business and Management to increase innovative productivity and performance of organizations and individuals. The course focuses on overview, learning and practical use of advanced techniques for innovative improvement of business systems through generation of new innovative ideas and solutions in a systematic way. The acquired skills will help the course participants to innovatively improve their business systems through identifying and modeling system relationships and applying Laws and Trends of System Evolution to identify evolutionary potential of business systems and roadmap new generations of innovative ideas. The course is intensive and includes practicing in groups on real problems.

Contents

- Advanced TRIZ Background.
- Business Modeling and Business Model Canvas.
- Business Systems Resources.
- Business Ideality Roadmap.
- Value-Conflict Mapping for identifying business evolution barriers and innovation opportunities.
- *Practice in groups with Value-Conflict Mapping.*
- Functional Evolution of Systems.
- Laws and Trends of Business Systems Evolution.
- *Practice with the Laws and Trends of Business Systems Evolution. Application of the Laws and Trends of Evolution of Business Systems Evolution*
- Function Modeling, identification of functional problems.
- Business Systems Functional Problem Solving with the Inventive Standards for Business and Management.
- *Practice in groups with Business Systems Functional Problem Solving.*
- Business System Trimming and evolution towards ideality.
- Business Model Innovation.
- Ideas Evaluation and Landscaping.
- Evolution trees and roadmaps.

All material is learned via lectures and extensive practice in groups

Courseware: Course slides; Course videos, Reference materials, course book "TRIZ Techniques and References for Business and Management", DVD with courseware.

C8: CREATIVE IMAGINATION DEVELOPMENT: ESSENTIALS AND TECHNIQUES

Duration: 1.5 days (12 hours)

Format: Workshop. Practice in groups.

Certificate: TRIZ Training International Centre: Creative Imagination Development Practitioner.

Target Audience

Target audience: Those who wish to enhance their creative capabilities and learn how to improve out of the box thinking skills: from students to executives, from business and technology to film making.

Previous experience with TRIZ is not required.

Synopsis

The course content is based on findings and developments of one of the best minds within creativity studies: Genrich Altshuller, who has been widely known for originating TRIZ, a Theory of Solving Inventive Problems. Today TRIZ is the best known tool to solve inventive and innovative problems. But while TRIZ mostly focuses on technological and business areas, and it takes considerable time to learn and master, the Creative Imagination Development (CID) techniques can be used in every area, learned very quickly, and immediately put to practice.

Skills with systematic Creative Imagination Development not only help to come up with new ideas. They help to recognize existing opportunities and see ahead of others.

In the past, CID techniques were successfully used to invent new products and add new features to existing products, solve technical and business problems, find new creative ideas for marketing and advertisement, books and screenplays, paintings and photo art, home decoration – virtually every area where creativity is demanded. CID techniques can also be successfully used at team sessions to facilitate new ideas generation.

Contents

- Background of Creative Imagination Development
- Ordinary thinking vs. power thinking: the differences
- Psychological inertia, fears, and barriers: how to fight?
- Out of the box thinking: why difficult? What can be done to improve?
- System Thinking and Multi-Screen Diagram.
- Recognizing and eliminating existing and potential contradictions: a basis for generating new ideas.
- Parameter Intensification and Operator "Size-Time-Cost".
- Attribute Transfer and Focal Objects.
- Multi-Level Design
- Hybridization
- Trend Extrapolation technique
- Ideal solutions and Gold Fish technique.
- Collection of Generic Principles for Creative Ideas Generation.
- Fantogramma
- Inventive storytelling and scenario development
- *Extensive practice with all tools learned.*

All material is learned via lectures and extensive practice in groups.

Courseware: Course slides; Course videos, Reference materials, DVD with the courseware.

C9: ROOT CONFLICT ANALYSIS (RCA+)

Duration: 1 day (8 hours)

Format: Workshop. Practice in groups.

Certificate: TRIZ Training International Centre: RCA+ Practitioner

Target Audience

Target audience: Those who wish to enhance their problem solving capabilities and learn how to deal with complex problems: from students to executives, from business and technology to film making.

Previous experience with TRIZ is not required.

Synopsis

Root Conflict Analysis (RCA+) is a relatively new addition to the set of tools and techniques which is aimed at helping to manage complexity of problems by identifying contradictions which compose a problem and establishing relationships between these contradictions. RCA+ is a domain-independent universal technique which can be performed within the scope of three tasks:

- To solve a specific problem related to a certain specific product, service or process (e.g. to increase sales of a specific service produced by a specific company, to eliminate failure of a specific product).
- To solve a broad problem related to an entire class of products, processes or services (e.g. to prevent all ships from sinking, to eliminate the possibility of an error made by a pilot during flights, to eliminate errors by a call centre, etc.)
- To predict and eliminate possible and potential failures within systems and processes (e.g. to identify possible causes of project failure).

Unlike traditional methods of Root Cause Analysis, RCA+ targets at revealing conflicts rather than single causes and define links between them. Very often, even if we found a cause of a certain problem, we can't just eliminate it: because the same cause contributes to a positive effect. To solve complex problems we should understand them - and not only negative causes but positive as well. In addition, coupled with TRIZ techniques for resolving conflicts, RCA+ provides a powerful platform not only for problem analysis but for problem solving.

Contents

- Key concepts and philosophy of Root Conflict Analysis (RCA+)
- Conflicts as major obstacles for obtaining powerful solutions
- A process of top-down decomposition of problems and revealing conflicts
- Analysis of RCA+ diagrams
- Categorization of conflicts
- Selection of a conflict to resolve
- Selection of a strategy for conflict resolution
- Conflict separation principles to generate ideas on how to resolve conflicts.
- *Extensive practice with RCA+ on customer cases*

All material is learned via lectures and extensive practice in groups.

Courseware: Course slides; Course videos, Reference materials, DVD with the courseware.

C10: VALUE-CONFLICT MAPPING (VCM)

Duration: 1 day (8 hours)

Format: Workshop. Practice in groups.

Certificate: TRIZ Training International Centre: VCM Practitioner

Target Audience

Those who wish to enhance their problem solving capabilities and learn how to deal with complex innovation issues: from students to executives.

Previous experience with TRIZ is not required.

Synopsis

To properly define future innovation strategy, a business needs to develop a map which establishes and structures relationships between all types of so-called "blocking" contradictions which should be resolved within short and long terms. To create such maps, we developed and introduced a technique called "Value-Conflict Mapping" (VCM).

VCM was designed to define contradictions that emerge between market, technology and business demands. VCM proposes a process of direct mapping of existing market demands and trends to relative values of properties or parameters of existing technical products or processes, and then identifying existing and discovering potential "hidden" contradictions by a procedure of value inversion. A central idea behind VCM is to define how an existing technological product or process contradicts to current and future business and market demands, trends, and requirements.

An output of the process with VCM is a structured chart representing a number of contradiction trees related to one or another part of a technical or a business system. Later the contradictions can be ranked and resolved to obtain new innovative solutions.

VCM provides the following:

- Mapping market and customer demands to contradictions emerging within a technical system.
- A comprehensive overview of the technical system's parts (subsystems) causing contradictions.
- Identification of new or "hidden" contradictions and demands via the procedure of value inversion.
- Input for a multitude of projects on further system innovation.
- Information necessary for defining and structuring innovation strategy with respect to a system given.

VCM can be used in various contexts and for analysing various types of systems.

Contents

- Innovation through problem solving
- Introduction to the idea of a blocking contradiction
- Mapping market requirements and demands to relative values of technical and business parameters.
- A tree of blocking contradictions
- Value-Conflict Mapping process.
- *Practice with Value-Conflict Mapping*
- How to use results obtained with Value-Conflict Mapping

All material is learned via lectures and practice in groups.

Courseware: Course slides; Reference materials, DVD with the courseware.

C11: SYSTEMATIC BUSINESS MODEL INNOVATION

Duration: 1 day (8 hours)

Format: Workshop. Practice in groups.

Certificate: TRIZ Training International Centre: Systematic Business Model Innovation Practitioner

Target Audience

Business managers, business developers, strategists, business problem solvers.

Previous experience with TRIZ is not required.

Synopsis

In the past few decades TRIZ has become the best practice of innovation at a number of world-leading companies. While the vast majority of TRIZ applications cover technology and engineering the fundamental concepts of TRIZ approach to problem analysis and creative ideas generation are based on a solid background which can be used within a much broader area. It is why recently the ideas of TRIZ started to penetrate other areas where creative problem solving is required and one of these areas is business and management. One of the areas where TRIZ has been found to work rather successfully is innovative improvement of business models.

Either at a startup or a large organization, we often face problems or challenges related to different business evolution issues that can not be easily solved. Sometimes we might know a solution but limitations and constraints do not allow us to use it. Or we miss a proper problem solving strategy. In most cases it happens due to a conflict of demands which we call a "blocking contradiction": we want to change something or achieve a certain goal but something else prevents us from obtaining the result desired.

Usually contradictions are very difficult to solve so we come up with trade-offs that can be costly or that still do not bring the expected result. In such situations we try to apply creative thinking to "get out of the box" to resolve contradictions in the best possible way. A key advantage of using TRIZ is that instead of trying to randomly jump to a solution we use techniques which provide structured analysis of a situation, discovery and structuring of problems, and organize guided search among patterns of the best innovative ideas.

Due to systematic background, the methods and techniques can be learned and put to practice by every business and management professional. Such knowledge and skills add considerable value to the existing intellectual assets of any individual or an organization.

Contents

- Introduction to Business Modeling
- Extraction of potential challenges and opportunities
- *Practice with Business Modeling*
- Using Ideality and Resources to innovate existing business models
- *Practice with using ideality and resources*
- Discovering and solving contradictions in business models
- *Practice with discovering and solving contradictions in business models*

All material is learned via lectures and practice in groups.

Courseware: Course slides; Reference materials, DVD with the courseware.

CX, CY: CUSTOMIZED TRAINING COURSES AND COACHING

We possess a large experience with delivering different customized courses on specific subjects as well as provide individual and group coaching on processes and applications of methods and tools of TRIZ and Systematic Innovation. Therefore we can select and define a relevant content and adapt our training programs to specific needs of our customers.

We also can assist customer teams and individuals on establishing, managing and performing innovative projects and creative sessions.

As a part of our primary activities, we continuously monitoring emergence of new ideas in the areas of TRIZ and Systematic Innovation, and develop new tools and techniques to enhance TRIZ and Systematic Innovation. It gives us a possibility to offer training courses and run innovative sessions including the most recent developments.

Please contact us to discuss your needs and possible opportunities.

CONTACT AND FURTHER INFORMATION

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