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To possible through impossible

ICG Training & Consulting:

TRIZ-based Systematic Innovation and Creativity

SERVICES

During past decade TRIZ-based Systematic Innovation has been producing a considerable impact worldwide. Leading companies and entrepreneurs use TRIZ and Systematic Innovation to accelerate innovation and achieve innovative leadership. Such global companies as General Electric, Intel, Samsung selected TRIZ as the best practice of innovation.

Major benefits from using, learning and implementing TRIZ and Systematic Innovation:

- Quickly and effectively addressing innovative challenges and solving innovative problems on demand to continuously stay ahead of competition.
- Efficient use of resources to avoid numerous trials and errors leading to failures.
- Establishing a manageable systematic and structured process of innovation front-end.
- Raising intellectual capital of individuals and teams.



OUR SERVICES

Public and in-house training in TRIZ and Systematic Innovation

Consulting and facilitation of innovative projects

Individual and team coaching in Innovative leadership

Organization-wide implementation of TRIZ and Systematic Innovation

Speaking





PUBLIC AND IN-HOUSE TRAINING



TRAINING

“After the advanced TRIZ course by Valeri Souchkov, the founder of ICG T&C I believe TRIZ has great potential for the business world. It is a powerful tool to get people out of their normal line of reasoning, and to achieve extraordinary results.”

Vice President
Business Innovation,
Capgemini, The Netherlands



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We provide a full range of the top quality training and certification services worldwide to acquire knowledge and develop practical skills with TRIZ and Systematic Innovation.

Both public and in-house training programs are available which help learning TRIZ-based Systematic Innovation for technology and business applications and master practical skills with its contemporary tools.

We also provide online distant training.

Our training courses are accredited by the International TRIZ Association (MATRIZ).

TRAINING PROGRAMS

"A course by Valeri Souchkov on TRIZ was the best course on innovation we had so far at LG".

Director
LG Group Learning Centre
South Korea

- Basic and advanced certification training programs in TRIZ and Systematic Innovation: levels 1-3 accredited by the International TRIZ Association: MATRIZ.
- Separate training programs on TRIZ in Business and Management and TRIZ in Technology and Engineering.
- Training in specific tools of TRIZ and Systematic Innovation.
- Training in Systematic Business Model Innovation.
- Training in Systematic Creative Imagination Development.
- Train-the-trainer programs.



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TRAINING SUBJECTS

"It was amazing to see how one can learn to develop valuable breakthrough ideas with TRIZ within fraction of time during a training class run by ICG T&C."

R&D Manager
Philips
The Netherlands



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Analytical Tools

- Problem Perception Mapping
- Root Conflict Analysis (RCA+)
- Function Analysis
- Value-Conflict Mapping (VCM)
- Substance-Field Analysis
- Algorithm of Solving Inventive Problems (ARIZ)
- Models of Innovative Systems Evolution and Strategies of Innovation
- Multi-Screen Analysis
- Function-Market Demand Analysis

Ideas Generation Tools

- Ideal Solution
- Inventive Principles
- Conflict Elimination Principles
- Inventive Standards and Patterns
- Catalogues of Effects
- Analogy Based Search
- Trends and Lines of Patterns of Technology and Business Systems Evolution
- Functional Idealization and Trimming
- Hybridization

Creative Imagination Development Tools

- Focal Objects
- Method of Trends
- Golden Fish
- Multi-level Modeling
- Parametric Intensification and Size-Time-Cost operator.
- Ideality
- Principles of creative design
- Fantogramma
- Principles of Power Innovative Thinking
- Creative Story Development

Evaluation Tools

- Ideality-Value Evaluation Criteria
- Ideas Ranking and Landscaping
- Ideas Roadmapping
- Multi-Criteria Decision Matrix
- Ranking and Expert Evaluation

WHY TRAINING FROM US?

“This TRIZ course is an absolute must for everybody who wishes to obtain a deep understanding of the entire range of TRIZ tools and more from one of the best TRIZ trainers. After his course you will be able to apply TRIZ immediately to real problems within your own job.”

International R&D Director,
Koppert Systems
The Netherlands



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- We provide full range of TRIZ and Systematic Innovation training programs: from beginner's to master levels.
- Our training programs are developed by us and approved by MATRIZ.
- We provide certification by the International TRIZ Association MATRIZ.
- We regularly include the latest developments within TRIZ and Systematic Innovation to our training programs.
- We have large experience with training of diverse types of customers.
- We customize our courses when needed.
- Our trainers have large experience with real-world innovative projects since they regularly assist customers on solving inventive problems and developing new products, technologies and services.
- Trainers in our network team have from 10 to 30 years of experience with TRIZ.
- Our trainers teach various TRIZ programs at universities worldwide.
- Most of our trainers are TRIZ developers.
- We train and prepare TRIZ in-company trainers.
- We license our training programs.

WHAT MAKES US DIFFERENT?

"I may comment in one statement: I've participated in similar workshops, but only after this workshop I can say: Innovation can be systematic."

R&D Manager
Royal Scientific Society
Jordan



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- Most TRIZ training companies teach only tools of classical TRIZ or simplified versions of TRIZ. Often they offer rather distorted versions of TRIZ. We offer programs of various degree of advancement covering a full set of tools available in modern TRIZ and Systematic Innovation.
- Most TRIZ suppliers offer TRIZ training only as a part of their training portfolios and their TRIZ trainers are not full-time TRIZ specialists. We are full-time TRIZ and Systematic Innovation professionals.
- Most current TRIZ suppliers have no practical experience with innovation and inventive problem solving while we are continuously involved to real-life projects with our customers.
- Most TRIZ suppliers only teach specific tools without explaining how different TRIZ and Systematic Innovation tools are connected while we focus on recognizing TRIZ as a system.
- Most TRIZ suppliers teach only separate TRIZ tools and techniques. We teach not only tools but also processes with TRIZ tools.
- Most TRIZ suppliers train customers by using educational examples only. We train customers on their own projects and problems.
- Our training programs include new tools developed by us and which are only available from our licensed representatives and accredited trainers.

SOME OUR CUSTOMERS (TRAINING)

“The project-based training demonstrated the power of TRIZ and provided was with new insights on solving our problems.”

R&D Manager
ASML
The Netherlands



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- AIT Group, Luxembourg
- ABN AMRO, Netherlands
- Arizona Chemical, Netherlands/USA
- ASML, Netherlands
- Bank of Development, Bahrain
- Caerleon, Netherlands
- Campina, Netherlands
- Capgemini, Netherlands
- Cargill, Germany
- DSM, Netherlands
- Dupont, Netherlands
- Eureka Achmea, Netherlands
- Exxon Mobil, Belgium
- General Electric, Netherlands/USA
- Getronics, Netherlands
- ING Bank, Netherlands
- Inpaqt, Netherlands
- Keypoint, Netherlands
- Koppert, Netherlands
- LEM Group, Switzerland/UK
- Lever Faberge (Unilever), Germany
- LG Electronics, Korea
- Ministry of Foreign Affairs, Netherlands
- Ministry of Science and Technology, Brasil
- Milliken Europe, Belgium
- NST, Netherlands
- Norit, Netherlands
- Océ, Netherlands
- Orange, Jordan
- Philips Electronics, The Netherlands
- Philips Lighting, The Netherlands
- Philips Semiconductors (c. NXP), Netherlands
- PriceWaterhouse Coopers, Czech
- POSCO, Korea
- Purac, Netherlands
- Reckitt Benckiser, UK
- Royal Dutch NAVY, Netherlands
- Royal Scientific Society, Jordan
- Saudi Aramco, Saudi Arabia
- Sensata (ex. Texas Instruments), Netherlands/USA
- Siemens, Germany
- Shell, Netherlands
- Ten Cate, Netherlands
- Thales, Netherlands
- TNO Building and Construction, Netherlands
- TNT, Netherlands
- Trett Consulting, USA
- University of Bergamo, Italy
- University of Florence, Italy
- University of Eindhoven, Netherlands
- University of King Abdulaziz, Saudi Arabia
- University of Leuven, Belgium
- University of Twente, Netherlands
- Vredestein, Netherlands
- Whirlpool, Italy



INDIVIDUAL AND TEAM COACHING



COACHING

“Valeri Souchkov is so passionate about it so that he delivers it with energy that you can feel. With his focus on exercises, he always make it clear that his value proposition is not only to deliver the knowledge of TRIZ, but also to help in experiencing a new way of thinking, feeling it, and making it as a part of your mindset, and after each exercise, it was amazing what results and new ideas I came out with. Valeri has just taken my mind into another level and he has just changed the world in my eyes.”

Program Manager, Financing
of Innovation, Science and
Technology Foundation
UAE



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To enhance the skills and capabilities we propose a coaching service to help our customers to become innovation leaders.

- In-depth individual coaching in different specific TRIZ and Systematic Innovation methods and tools.
- Individual management coaching on the development of innovative leadership skills.
- Group coaching on effective application of TRIZ and Systematic Innovation tools.



CONSULTING AND FACILITATION



CONSULTING AND FACILITATION

“A TRIZ project helped us to generate new solutions ideas within two weeks which we could not see within last five years.”

R&D Manager
ASML
The Netherlands

The service targets at helping our customers to innovatively improve existing products and technologies by generating new ideas by solving current or future problems and address challenges related to these products and processes.

An output of the service is a ranked portfolio of new ideas, solutions and solution strategies obtained with systematic innovation methods.

The results of the service will help to identify new directions for:

- improving existing or creating a new product, process or service;
- eliminating existing problems, undesired effects, and conflicting demands;
- reducing costs of processes and products via innovation;
- forecasting future evolution of a selected product, process, or service;
- creating new intellectual property;
- Improving protection of existing intellectual property.



HOW IT WORKS

ICG T&C delivered TRIZ projects for LEM in Skelmersdale and in Geneva. During the projects we were able to successfully learn and apply a new and practical methodology for innovation and creative problem solving and generating new ideas to create new intellectual property“.

Technology Manager
LEM
UK



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- The service is based on extracting the origins of problems and challenges by cause-effect and functional analysis, finding inconsistent, insufficient or undesired relationships, identifying conflicts which create a general problem or a challenge.
- To generate new solution strategies on how to improve systems or how to resolve conflicts and eliminate negative effects, the TRIZ techniques are applied for resolving conflicts in combination with innovative patterns of system improvement and inventive principles provided by the Systematic Innovation knowledge bases.
- Complementary techniques for ranking and evaluation are used during the process to enable systematic process flow and enhance decision making.
- A typical project consists of a number of on-site collaborative working sessions with a customer's specialists as well as intermediate off-site work and preparations for the next on-site sessions.
- Outside specialists can be invited to participate in some on-site sessions who might provide needed expertise and help with widening a scope and breaking psychological inertia.

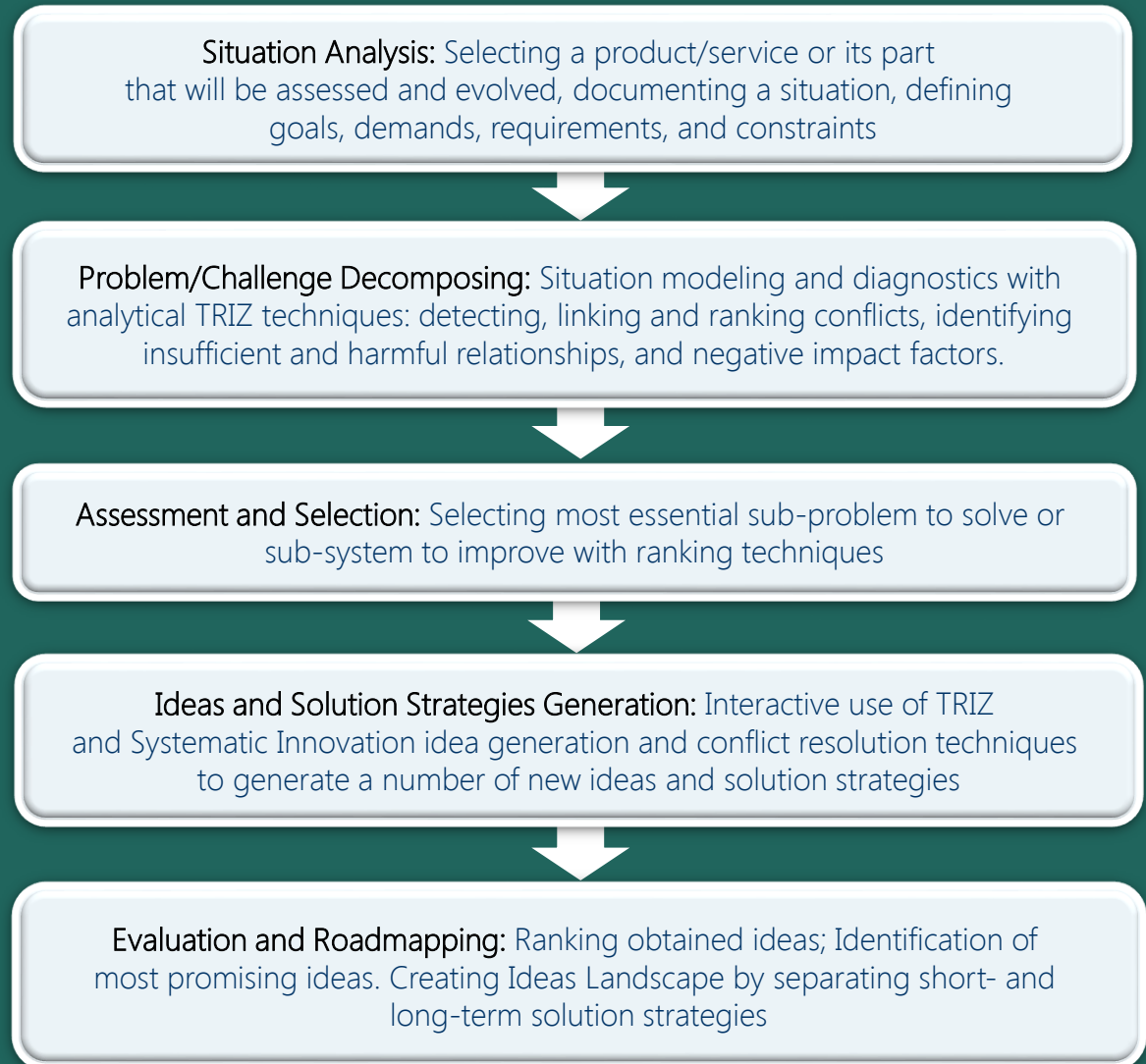
PROCESS STAGES

"Together with ICG T&C, we innovated a lot of products from machinery to consumer products and combined design with ideal functionality. So we are very enthusiastic about TRIZ."

Managing Director
Idé Partners
The Netherlands



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ORGANIZATIONAL ISSUES

- A project consists of a number of on-site group sessions with customer's professionals and is complemented by off-site research work by a TRIZ expert(s).
- A relevant TRIZ tool or technique required for each stage of the process is chosen by a TRIZ expert before or during each session.
- Each on-site session can be broken to several smaller sessions depending on the complexity of a situation, or the need to obtain additional information, or necessity to evaluate intermediate results.
- It might be decided to involve to a project a third-party subject matter expert familiar with a subject-matter area under exploration to identify solution concepts. If such a need arises, it is discussed and agreed with a customer before or during a project.
- A total chargeable project time: from 5 to 30 chargeable days depending on a scope of a project and problem complexity.
- Lapse time is from 1 week to 3 months depending on a complexity of a challenge and availability of customer's specialists for the on-site sessions.
- On-site sessions with a project team on average take 3-4 hours.
- As follows from our previous experience, a typical project of a middle-level complexity takes 4-5 on-site sessions and 3-10 off-site days.



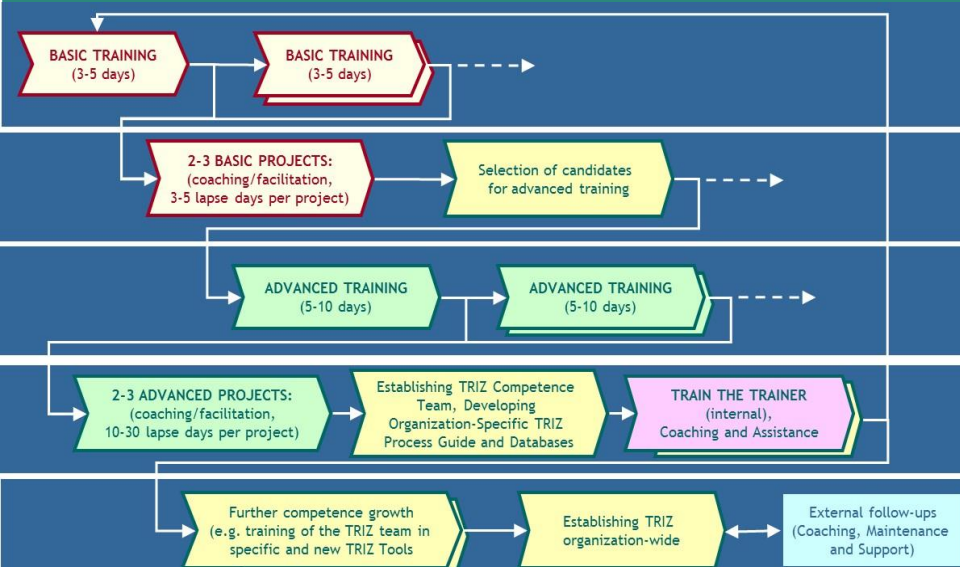
SOME OUR CUSTOMERS (CONSULTING)

- ASML, Netherlands
- Bredel, US/Netherlands
- Campina, Netherlands
- Capgemini, Netherlands
- DSM, Netherlands
- Eurocarbon, Netherlands
- General Electric, Netherlands/USA
- Heerema, Netherlands
- Inpaqt, Netherlands
- Keypoint, Netherlands
- Koppert, Netherlands
- LEM Group, Switzerland/UK
- Lever Faberge (Unilever), Germany
- Maastricht Instruments, Netherlands
- Milliken Europe, Belgium
- MGI Coutier
- NST, Netherlands
- Pentair, Netherlands/USA
- Océ, Netherlands
- Orange, Jordan
- Pentair, USA/Netherlands
- Philips Electronics, The Netherlands
- PriceWaterhouse Coopers, Czech
- POSCO, Korea
- Purac, Netherlands
- Reckitt Benckiser, UK
- Royal Dutch NAVY, Netherlands
- Sensata (ex. Texas Instruments), Netherlands/USA
- Siemens, Germany
- Technomed, Netherlands
- Ten Cate, Netherlands
- TNT, Netherlands
- Unilever, Netherlands
- Apollo Vredestein, Netherlands
- Wientjens, Netherlands





TRIZ AND SYSTEMATIC INNOVATION IMPLEMENTATION



IMPLEMENTATION

“But it was TRIZ that became the bedrock of innovation at Samsung.”

In 2003 TRIZ led to 50 new patents for Samsung and in 2004 one project alone, a DVD pick-up innovation, saved Samsung over \$100 million. TRIZ is now an obligatory skill set if you want to advance within Samsung”

Forbes Magazine
March 2013



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In order to achieve most effective results from using TRIZ and Systematic Innovation we assist our customers in the organization-wide implementation of a system to continuously increase competence of the organization's personnel in the TRIZ-based Systematic Innovation.

Once implemented such a system provides continuous internal support of the innovation front-end activities to solve innovative problems and challenges and create innovation roadmaps of new products and services.

The system also provides a platform for training of the internal TRIZ and Systematic Innovation trainers who will further transfer and distribute knowledge and skills with TRIZ and Systematic Innovation within an organization.

IMPLEMENTATION SUCCESS FACTORS

- Long-term commitment instead of single short trials.
- Support from top management.
- Establishing a TRIZ team (full-time or part-time).
- Assignment of an active TRIZ “treasurer” (champion).
- Bringing people with innovative and creative skills to the TRIZ team.
- Combining TRIZ trainings with real projects.
- Cooperation with outside top TRIZ experts on a long-term basis (beware of dealing only with “easy TRIZ” and purely software-based TRIZ vendors).
- Getting excellent results in real projects using TRIZ within short time.
- Introducing beginners’ TRIZ education and promoting the methodology.
- Establishing a corporate-wide TRIZ network.
- Alignment with a general enterprise innovation strategy (if any).
- Integrating TRIZ with other methods (e.g. Six Sigma, TQM, Technology Roadmapping, Agile and Lean).
- Building a systematic innovation network (internally and externally).
- Individual motivation support and rewarding mechanisms.
- Public recognition of results obtained with TRIZ in an organization.





SPEAKING



The leading TRIZ and Systematic Innovation developers and experts from our network regularly speak at all kinds of local and global events dedicated to technology, social, and business innovation.

It provides a global innovation community with knowledge about latest paradigms and breakthrough achievements in the areas of TRIZ, Systematic Innovation and creativity which today affect all levels of global competition and society development.



OUR NETWORK

Knowledge Providers: European TRIZ Association ETRIA, International TRIZ Association MATRIZ, The International TRIZ University, regional TRIZ networks, our customers, universities, etc.

ICG T&C

Business Value Network
for training, consulting, implementation, development

Accredited trainers
and consultants
worldwide

Core
Competence
Team

Knowledge-centered
business partners and
networks





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