

## TRIZ

### A systematic approach to enhancing and accelerating creativity

TRIZ is the Russian acronym for Theoria Reshenevya Isobretatelskehuh Zadach i.e., Theory of Inventive Problem Solving. It is based on 2 fundamental principles:

1. There is a high probability that somebody, sometime, somewhere has already solved your problem or a problem similar to it; enhancing creativity means finding that solution and adapting it to your current problem
2. Never accept compromise when dealing with contradictions. Resolve them.

TRIZ was developed by G.S. Altshuller and his colleagues between 1946 and 1985 in the former USSR and its fundamental assumption is that, basically, creativity is not something spontaneous and intuitive, but can be a systematic process that relies on the study of the patterns of previous problems and their solutions. More than 3 million patents were analyzed to identify the patterns that predict breakthrough solutions to various problems.

❖ **TRIZ methodology** developed the “Contradiction Matrix” and the “40 Inventive Principles”. The mechanism of solving an inventive problem in TRIZ is the following:

1. Define specific problem to be solved
2. Reformulate specific problem into a general problem
3. Find a general solution to the general problem using Contradiction Matrix and the 40 Inventive Principles
4. Convert (reformulate) the general solution into a specific solution to the initial specific problem



❖ **As it demonstrated** its capability to deliver effective and efficient solutions, TRIZ is spreading into corporate across several parallel paths:

- Lean Six Sigma
- Project Management
- Risk Management
- Innovation initiatives

❖ **Using TRIZ**, Ford reduced idle vibration in small cars by 165% and achieved savings of \$7 million p.a. by eliminating squeaky windshields issue. By combining TRIZ and DFSS (Design for Six Sigma) Dow Chemical Company reduced the capital cost for building a new plant from \$110 million to \$80 million.



Kindly attend TRIZ trainings offered by Effective Flux to leverage this effective and efficient methodology.