

TRIZ Assumptions Revision

TRIZ Boundaries

TRIZ is an applied discipline studying evolution of engineering and other artificial systems for the purpose of developing methods and tools for:

- Directing (guiding) systems' evolution in accordance with their evolutionary patterns ensuring the most effective and efficient development
- Resolving problems and other issues in the most effective and expeditious manner
- Enhancing human abilities to:
 - Come up with innovations/inventions
 - Become effective thinkers

TRIZ Periodization

Period	Description
Classical TRIZ	TRIZ as developed by Genrich Altshuller himself and his disciples accredited by him (from the mid-1940s to the mid-1980s)
Modern TRIZ	TRIZ starting from perestroika in the former Soviet Union (from the mid-1980s to present). Three major factors distinguish modern TRIZ from the classical one: <ul style="list-style-type: none">• Focusing on business / commercial application, not just on technical problems solving• Focusing on development of actual innovative products and technologies rather than inventive ideas• International/global presence

Suggested Changes (1-3)

	Classical TRIZ	New Approach
1	People need inventions. Invention is always better than a conventional solution	Clients need solutions to their problems in order to achieve their objectives. It is possible in many cases to reach the objectives without inventions
2	High-level invention is better than a low-level one	Invention value is defined by its market benefits and cost
3	The main mission of TRIZ is to allow inventing at the highest levels	The main mission of TRIZ is to direct system evolution toward developing of products and technologies of highest market value

Suggested Changes (4, 5)

	Classical TRIZ	New Approach
4	TRIZ has been developed, and must continue to develop, based on the knowledge embodied in patents, history of technology	TRIZ should develop based on innovations (novel solutions with proven market value), in particular created with TRIZ help
5	TRIZ is a “stand-alone” methodology; it has nothing in common and cannot collaborate with the Trial-and-Error method and its psychology-based enhancements	TRIZ must collaborate (and if necessary absorb) with the best of other relevant innovation techniques that are compatible with its boundaries

Suggested Changes (6-8)

	Classical TRIZ	New Approach
6	While solving a problem, an individual must look for the one solution	While solving a problem, an individual must target multiple solutions
7	A solution should be near-ideal solution ("global ideality")	Select the best solutions based on local specific resources, short-, mid-, and long-term requirements and risks ("local ideality")
8	TRIZ should focus on revealing and resolving contradictions	Innovation doesn't have to be a result of contradiction resolution. TRIZ must support, besides idea generation all steps of the problem-solving process, including problem definition, formulation (reformulation), identification and solving secondary problems, evaluation of solutions and planning for their implementation

Suggested Changes (9-11)

	Classical TRIZ	New Approach
9	The evolution of technology is governed exclusively by the Patterns of Technological Evolution. Follow these and you will always be successful	Successful inventions are complying with evolutionary patterns, lines and trends in technology, business and market
10	The Patterns of Evolution must be based exclusively on high-level inventions	Patterns of Evolution should reflect all steps of the evolutionary process including the ones required drastic changes and incremental ones as well
11	The development of technological TRIZ is fully completed. Everyone involved with TRIZ should work on the development of creative individuals	Technological TRIZ is in the process of further development