TRIZ AS AN AMPLIFIER FOR CORPORATE CREATIVITY AND CORPORATE INNOVATION ABILITY

Barbara Gronauer(*)
StrategieInnovation, Hünfeld, Germany
(*)Email: bg@strategieinnovation.de

ABSTRACT

Staff members with high engagement and highly developed creativity and innovation ability help companies establish an advantageous market position by creating innovative products and services. This process can be positively influenced by applying the methods and tools of the innovation methodology TRIZ during strategic product forecast and planning as well as operative phases of product realization. This presentation shows, how advantageous conditions can be established that motivate the members of staff to engage themselves for developing creative and innovative products by using the system-based innovation methodology TRIZ.

Keywords: TRIZ, creativity, innovation ability, product development, strategy, organisation development.

INTRODUCTION

TRIZ provides excellent tools for designing customized problem solving and product developing processes and algorithms (KOLTZE, SOUCHKOV, 2xxx). These can then be used to map out the corporate product line and the strategy for reaching the business objectives.

During the strategic planning process a complete functional and historical map of a product can be created. The product map accelerates identification of inventive and innovative potential through all system hierarchies: With integrated use of the 9-screen model and function analysis together with S-Curve analysis and Analysis of the underlying Main Parameters of Value for the customers the status quo of the product portfolio can be determined. S-Curves and TESE-Assessment provide guidelines and suggestions for future development activities and planning of new product generations. So the product forecast can be completed by applying the Trends of Engineering Systems Evolution (TESE) as well as tools like Feature transfer, Function Oriented Search and Inventive Principles. Afterwards, when the phase of product realization starts, TRIZ based problem solving on each system level can be quickly initiated.

A common and transparent understanding of the whole product system is created between all people involved. Operational activities in research and development departments can be structured and planned more systemically, as interconnections between Subsystems become more transparent. Necessary changes, e.g. closing of production facilities due to upcoming technological changes or a shift in the company’s expertise, can be planned and communicated early in advance (NAEHLER, GRONAUER, 2014).
This process requires the participation of employees from different departments, giving them a common language and system for working together. As a result, a clear picture and understanding of the past, present and future product generations is developed. Furthermore, upcoming organizational steps and changes can be deduced from this TRIZ based forecast and made transparent and understandable for the employees concerned.

The aspect last mentioned is particularly important: motivation and performance of the employees concerned by changes through new products/technologies are critical, limiting factors to the company during the creative phase of finding new ideas and solutions. Because of this, managers are required to provide a productive, balanced working atmosphere and freedom (MEYER, 2011) to experiment and to establish new knowledge as well as pick the right members for effective development teams (RUBINA, 2014). Even during those organizational tasks, the TRIZ Methodology in Combination with organizational management tools like the system-laws gives a clear advantage for identifying and solving conflicts between team members (GRONAUER, 2011).

If the employees work in effective teams and are given the resources like time and opportunities to learn and train the body of knowledge of TRIZ, they will then be able to achieve far-reaching solutions in a shorter time during the actual product realization phase.

The last positive aspect to be mentioned is aimed at the personal advantage through TRIZ for the employee, which is quite important as well and often underestimated. The knowledge of the TRIZ tools and experience in applying them, strengthens skills highly important for the creative development process: Perception, fantasy, combination and reinterpretation skills of the employee are supported and developed, providing positive self-awareness. This results in growing self-confidence and endurance for problem solving.
RESULTS AND CONCLUSIONS

With the use of the innovation methodology TRIZ, corporate chances get more clearly and in reach; the multiple tools and methods assist in finding and exploiting of strategic potential and operative realization possibilities.

Throughout the whole value creation chain applying the TRIZ methodology can have a highly positive impact on corporate culture: Creativity and innovation potential can explicitly triggered, shaping a companies’ future actively and participation oriented.

TRIZ is not only a problem solving toolbox, so exploiting the Body of Knowledge that TRIZ provides as an Innovation Methodology is actively driving change. TRIZ is therefore an important building block for a strategic corporate innovation and change management.

REFERENCES

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