

3. Local Quality
  4. Asymmetry
  5. Combining
  6. Universality
  7. Nesting
  8. Counterweight
  9. Prior counter-action
  10. Prior action
- etc.

ARIZ (Algorithm for Inventive Problem Solving)

Formulate the problem.

Transform the problem into a model.

Analyze the model.

Resolve physical contradictions.

Formulate ideal solution.

Directed Product Evolution (DPE)

Traditional technological forecasting tries to predict the "future characteristics of ... machines, procedures, or techniques."

### **TRIZ with QFD**

Since TRIZ can help engineers and developers solve technical contradictions and invent new technologies, its use in New Product Development is very important. Combined with Quality Function Deployment (QFD), a company should be able to identify important customer requirements and then solve any technical bottlenecks that arise.

## **EUROINTEGRATION: NEEDS FOR NEW FORMATS IN STUDENTS' RESEARCH**

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Essentially new eurointegration strategy of Ukraine provides reorientation of all our public life to new priorities and new models of social success. In author's opinion, the important parameters of involving Ukraine in Bologna process are skills of a student to find yourself in scientific researches, which assist the opportunity to realize yourself in a system of the European student's scientific

activity.

In Ukraine, as well as in every state, there are many gifted and talented young people, who have potential and desire to be engaged in scientific activity, to carry out various researches, which will bring a contribution to the development of a domestic science. There is no secret, that aspirations of these people, often enough remain non-realized. It becomes an absolute obstacle to steady technological development of Ukraine, which is the factor of prosperity of the state. Unfortunately, because of outdated forms of organization of educational process and scientific activity, which is not enough oriented for solving practical tasks, our country is being included into the development of an innovative society very slowly. Let's try to understand, why there is such situation, and whether there is a quit from it. We shall analyze it by students' eyes because exactly high schools are cells of scientific activity today. It is not enough for young people to have only desire and potential to embody idea in the scientific research, valuable to the public. First of all they need versatile information on the chosen theme, which, as a rule, you will not find in the nearest library and even in an information department of an educational institution. Support of experts in the chosen area of research is also necessary, because the help of the teacher, even the most skilled, can be not enough. Today there is a need for partner relations with educational institutions and centers of science in Europe, USA, Russia and other states, which will give an opportunity to increase efficiency of a student's science not only informatively and technologically, but through studying of practical organizational experience. And it is also important, that a student cooperates with people, who are engaged in the same research, because in a neighbouring country, maybe, there is someone, who is interested in a similar problem, and in that case, as they say, "two heads are better than one ". As we see, without certain information, organizationally-technological and material support, the young researcher is threatened with failure. The list of problems does not come to an end with it. Often there is also such question: how to draw attention to already made research, how to prevent unclaiming of it? In other

words, how can we present the research? Even if such problem arises in so modern high school, as Sumy state university, what to speak about young researchers, who study in small towns. And what happens, when the researcher, feels, from one hand, that he has potential, and from another, he encounters with absence of a mass market demand for such activity? So, very often decision is searched through outflow of intelligence into other states. One of directions of overcoming these problems is the search of nonconventional for our science sources of financing, through cooperation with donor establishments, programs of exchanges, development of grant projects. Eurointegration opens many prospects to our researchers, and in addition we can already estimate the advantages of the selected way today. Really, the orientation of Ukraine to eurointegration gives practical result. So the problem of scientific researches has started to move ahead to the decision slowly, but confidently. Now in Ukraine many international scientific conferences, where the researcher can present his work, started to be held. Such actions are held more and more often, and they are of great importance for our youth. Here a chance to realize yourself is given to everyone, as an opportunity to get support for the further work on the researches, and to find out many new facts, which will be useful for the further work. Such conferences are especially valuable for researchers, who work on questions, in which our state is not interested now, but the countries of Europe, which are more developed, - really are. But the main thing it gives, is an opportunity of direct contacts. Analyzing problems of scientific researches, which exist in Ukraine, we come to an idea, that eurointegration as the tool, which deduces the problems of scientific researches in Ukraine from the closed corner, is a primary factor of their decision. In such way it destroys obstacles for steady technological development, which will necessarily lead Ukraine to prosperity.