

# An Experience to promote and share experiences on TRIZ

APEIRON Association  
Italy

## Abstract

This paper reports the experience carried out at APEIRON, Italian Association for Reason-based Innovation, to share and promote the diffusion of methodologies for systematic innovation, in particular TRIZ, within an industrial context. To this end, APEIRON organised two workshops during which groups composed by people with different levels of knowledge and skills experimented and applied TRIZ methodology and related tools to an industrial case study.

Objectives and organisation will be presented as well as obtained results, both positive and negative.

**Keywords:** TRIZ; Workshop.

## 1 INTRODUCTION

APEIRON, the Italian Association for Reason-based Innovation ([www.apeiron-triz.org](http://www.apeiron-triz.org)), was born in September 2003 from an initiative of a group of people from industry and academy, sharing an interest toward systematic innovation methodologies, particularly TRIZ. Among its objectives, APEIRON aims at establishing links among people, industries, public and private institutions, universities and other education and training institutes to promote the scientific and technical knowledge of systematic innovation and problem solving. To this end, one initiative has been to organise workshops with two main goals: first to create an efficient link among the members discussing and sharing experiences gained on TRIZ and then to promote the diffusion of systematic innovation tools involving potential users ("novice" users) from industry and show them the potential of TRIZ through the development of a case study. In the following we briefly introduce the organisation and main results.

## 2 WORKSHOP ORGANISATION AND STRUCTURE

Apeiron organised two workshops: one in 2009 at Politecnico di Milano and another one in 2010 geographically distributed in three sites, Università di Bergamo, Politecnico di Milano, Area Science Park di Trieste, in order to increase and facilitate the participation of people from different Italian regions.

Participants are divided into working groups, maximum 4/5 persons each, coordinated by a tutor (TRIZ expert user). Each group comprehends persons both from academia and industry with different levels of knowledge and experience on TRIZ and related tools. Typically a group is composed by two persons from academia or research centres (PhD students or researchers), two persons from industry with a basic or medium level of experience, and one novice from industry, external to the Association.

The structure/organisation has been always the same for both days as follows:

- Presentation of participants;
- Description of the case study by the proposer;
- Work in parallel on the case study for each group;
- Presentation of results reached by each group;
- Final discussion.

For the workshop organised in 2010, a free web conference tool was adopted for the common sessions

(i.e., presentation of the case study, presentation of results and discussion).

The case studies have been preliminarily proposed by an industrial participant, member of the Association or external, to ensure the source of information on the problem to be solved and they are conveniently selected to allow an educational-applicative path suitable to TRIZ tools and without privacy constraints. A written documentation of the case study/technical problem was also provided to each participant. First case study, provided by a SME, referred to an electromagnetic actuator while the second concerned a sub-system of machinery for hygiene disposable products proposed by an Italian manufacturer.

## 3 RESULTS AND CONSIDERATIONS

As said, up to now, Apeiron has organised two workshops and results have been considered satisfactory.

In 2009 the participants were 16 people mainly members of the Association and from Lombardia Region. They were divided in four groups and about 56% came from academia and 44% from industry (Fig 1).

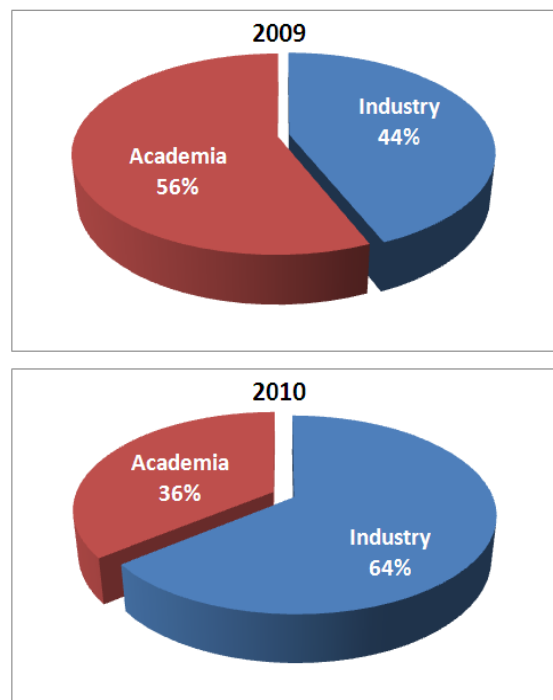


Figure 1 - Participants

In 2010 the participants increased, were 28 people from different Italian Regions (Lombardia, Veneto, Friuli Venezia Giulia and Piemonte), and about 30% not members of Apeiron. They were divided in 6 groups (3 in Bergamo, 2 in Milan and 1 in Trieste) and with an opposite trend industry vs academia. Precisely 64% came from industry and 36% from academia (Fig.1). This seems to demonstrate that interest on TRIZ is growing in the industrial context. Another positive result has been represented by the number of new subscriptions to the Association by the external participants.

Regarding the organisation aspects, participants, especially the non-members, appreciated the opportunity to experiment personally TRIZ tools on real technical problem since.

Results at the end of the case studies development permitted the participants to evaluate the potential of the methodology and some of them are also considering the possibility to apply an educational and training program on TRIZ at their company. However, some participants, especially those with no TRIZ experience, envisaged the need of a preparatory activity and the possibility to extend the duration of the initiative.

Finally, an interesting outcome of these experiences is that despite each working group has followed partially different solving paths, mostly due to the limited amount of

time available, a substantial overlap of the most relevant solution directions has been observed, thus confirming to a certain extent the repeatability of the TRIZ-base problem solving process.

At present, Apeiron is planning to increase the number of workshops per year and extend the initiative to other Italian Regions implementing a capillary action.

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