

## INTRODUCTION

Each company has a continuous interest in improving its processes. The main focus is especially on quality improvement of products or services, improving the safety of technical equipment and health at work; not least it also deals with the impact of its activities on the environment. The current trend in the world is the introduction of an integrated management system, which can be used to ensure the fulfilment of the continuous growth of corporate competitiveness by meeting the requirements of quality, safety, and environment from all sides. Management of each company must therefore be immediately focused not only on production, or the area where the product is formed, i.e. especially pre-production areas and production process. All processes in the company play important role in ensuring functional integrated management system.

We point out the importance of need for a systematic approach to the use of quantitative, but especially statistical methods for modelling the cost of the improvement activities that are part of an integrated management system. Development of integrated management systems worldwide leads towards building of systematic procedures of implementation maintenance and improvement of all systems according to the requirements of all the sides involved. There is no dispute that, for example, poor quality of products; dangerous production line in terms of operation or production line producing dangerous waste, creates a variety of economic problems for producers and product users. Conversely, the ability to meet requirements of involved brings to all market participants significant positive effects in terms of higher competitiveness. System that is not constantly being improved generally begins to degenerate. Therefore, in functioning systems the process approach has to be developed, which is most frequently presented as improvement of processes or systems. Statistical methods represent integral part of the improvement. Not only in the process of diagnosis of error origin and management of experiments. These methods are more and more used to estimate the economic improvement attributes, i.e. expected costs in connection with the improvement of processes or profits upon accomplishment of improvement goals.

Based on norms ISO 9000, ISO 14000 and OH SAS 18000 businesses build systems approach to solve any problems related to their business. Any management system that performs the function of the nervous system of healthy business should contain its own structure – a subsystem focused on continuous improvement – provided

according to the basic principle of teamwork implementation, project partners and strategic improvement teams, linked to managing structures.

One of the functions of such a system is participation in diagnosing and solving potential problems, although their formulation is transformed into definite specific numerical form applicable in strategic and operational management activities of the business. The final form of improvement needs analysis includes a timetable of tools of improvement usage; implemented, and those planned to be implemented. Those, because of the lack of financial and capacity resources at market conditions of Slovakia, must be ranked according to the relevance and feasibility. Indicator that even under conditions of lack of investment resources and stagnation in industrial sector is able to determine whether it is necessary to deal with the problem and which parameters are important to the company from the point of strategic plans, is generally based on the economic analysis of the improvement costs. By this, improvement costs become a tool of the effective management system, contributing in:

- recovering the financial situation in company,
- increasing productivity,
- improving the quality of the product itself,
- more efficient allocation and usage of resources
- maintaining business at the level of development,
- strengthening its competitiveness and market position.

Statistical evaluation of the economic indicators of improvement costs and the need for a systematic approach to their management in terms of integrated management systems have become a key role also in the management of processes in the company Cu Drôt, a.s. The aim of this publication is to highlight the importance of proper implementation of statistical methods in the process of improvement costs management in the integrated management system of current market conditions and document the legitimacy of a systematic approach in the area of monitoring and analysing indicators of improvement with the aim of the efficient process management of company. We provide specific example of the implementation of appropriate statistical methods in the production of copper wire in a company Cu Drôt, a.s. This publication also aims to create a model for the estimation of integrated improvement costs, which through the use of statistical methods in the company Cu Drôt, a.s. is used to support decision-

making on improving efficiency.