## **RESEARCH PAPERS** FACULTY OF MATERIALS SCIENCE AND TECHNOLOGY IN TRNAVA SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA

2009

Number 26

## SUSTAINABLE PARTNERSHIPS – A NECESSITY FOR OUR COMPANIES

Bartolomej HAJNIK, Peter SAKÁL

## Abstract

The aim of our companies has to be the production of quality, environmentally suitable and secure products (or services) realized in an adequate way and with adequate technology. It is very important to employ theoretically and practically qualified human resources which must be managed and motivated not only towards fulfillment of sustainable development (SD) but especially of **sustainable partnership** (SP).

## Key words

sustainable development, sustainable partnership, human resources oriented for change, environmental orientation of human resources

## Introduction

The Nobel prize winner for economics (2001) J. E. Stiglitz pointed out in his work [4, p. 54] that the current globalization process (characterized by reduction of transport costs and of the barriers to free flow of goods, services and capital while there are still remaining barriers to the free flow of work force) is actually analogous to the previous process of creation of national economies. We have a system which could be called **global governance without global government.** A system in which some institutions, such as The World Bank, the International Monetary Fund, and the World Trade Organization, and some individuals, such as ministers of finance, industry and trade who are deeply connected to financial and business interests, are dominating the scene where many of the persons directly depending on the decisions of the mentioned institutions remain without any possibility to declare themselves. It is time to change some of the rules governing the international economic

Bartolomej Hajnik, Assoc. Professor, PhD. – Faculty of Materials Science and Technology, Slovak University of Technology, Field office, Dubnica nad Váhom, Slovak Republic, e-mail: bartolomej.hajnik@stuba.sk Peter Sakál, Professor, PhD. – Institute of Industrial Engineering, Management and Quality, Faculty of Materials Science and Technology in Trnava, Slovak University of Technology Bratislava, Slovak Republic, e-mail: peter.sakal@stuba.sk

system and to think about how decisions are made on an international level and for whose benefit.

## Sustainable partnership – necessity for our companies

The leading representatives and owners of our companies have understood very quickly that if their products (or services) have to compete in the European and world economic environment, they have to consider the issues of quality and protection of the environment, adequate security of all parts of the transformation process, ergonomics, and most urgently **the issues of power and material intensity** in their business strategies. This perspective signals the necessary introduction and compliance with **SP**.

The experiences of well developed Slovak companies confirm that our companies are striving for new structure in management of human resources in order to support *SD as a part of the organizational structure* that collects, processes, evaluates, archives, and publishes in responsibly information about the maintenance and protection of the environment. The phenomenon of change is focused not only on maximal utilization of company resources for producing goods (or offering services) to the client, but also on creating the potential for future development of the company. Change is represented in the fact that our companies ultimately must enter into **SP**, which will result in products created from the mosaic of economic, political, social, cultural and also environmental components for our future generations.

## The action plan for SD of the Slovak Republic (SR) for 2005-2010 confirms our ideas [2, attachment, p.11]. Support for innovations:

- increase of investments in research and development (to a level of 1.8% of GDP by 2010) and their effective utilization,
- increase the share of state funds used for financing of research and development (to a level of 0.6% of GDP by 2010),
- support of the innovative and scientific-technical activities of universities, and the incorporation of their results in the entrepreneurial environment,
- support for creation of entrepreneurial clusters which along with the state will finance the activities of research, technology and innovation centers,
- support for creation of innovative clusters and networks mainly within small and middlesized companies (SMC).

## **Reality and intentions**

## The reality is that we have to respect the abidance of SD rules more than before:

- rule of saving to restrict waste of all resources, to prefer durable products over singleuse (creating waste), to reduce the loss of heat and all kinds of energies, as the future will be about energy,
- recycling of used materials and products to save all resources and to reduce pollution of the environment (E) and the work environment by waste or waste water,
- use of renewable energy sources (RES) sun, water, wind and biomass.

The share of total electricity consumption from RES was 14.4 %. Based on the directive 2001/77/ES on support of electric energy produced from RES on the internal market with electric energy, the Slovak Republic should reach the announced goal of 21 % by 2010. The **energetic burden** of the national economy (NE) (kgoe – kilograms of oil equivalent) means the ratio of gross domestic energy consumption to GDP in a given calendar year. It is the measure of the energetic consumption of the NE and its energetic efficiency (it is 1.5 times higher in SR than in the average OECD country).

As an illustration:

In the EU 25 in 2003, this ratio was 209 kgod/1000 EUR; in the Slovak Republic in 2003 it was 937 kgoe/1000 EUR; and in Austria in 2003 it was 150 kgoe/1000 EUR. The energetic efficiency concept forms the basis of the framework program document, along with expected activities and rules until 2020, produced by the Ministry of Economy of the Slovak Republic in cooperation with the Slovak energy agency and other state bodies. The main intentions of this concept are to achieve a gradual decrease in the energetic demand of the Slovak Republic to the EU level, to create a motivating environment for energetically efficient behavior of inhabitants and market participants, as well as to support sustainable energy solutions and the introduction of new innovations and energetically effective technologies in all segments of the national economy. The main goal of this concept is to reach a 9 % savings in final energy consumption from 2008 to 2016 [2 p.19], in line with directive 2006/32/ES on energy services.

# Support will be granted to projects for building or operating equipment which is expected to use renewable energy sources:

- building or reconstruction of small water plants with installed performance up to 10 MW,
- building or reconstruction of equipment for energetic usage of biomass,
- installation of heat pumps,
- installation of sun collectors and photovoltaic cells,
- building or reconstruction of equipment using geothermal energy,
- *installation of equipment using wind energy.*

The ideas mentioned above do not degrade the indisputable significance of nuclear energy, which is the most important source of production and consumption of electric energy in the Slovak Republic. It is necessary, however, to look for innovative ways of increasing the share of new and renewable energy sources.

More than ever, it is also necessary, in all segments of the national economy, to use suitable technologies for regeneration and protection of the natural environment, to separate and recycle waste and waste waters, to solve old environmental problems, to prevent not only environmental crashes and crises (a proactive approach), but also especially energetic, fuel, and material crises which will inevitably end up in human resource crises (such as increased unemployment, decreasing of sources for education, social aspects and effects, health care and educational problems, etc.).

Figure 1 shows the aim of companies – a sustainable partnership

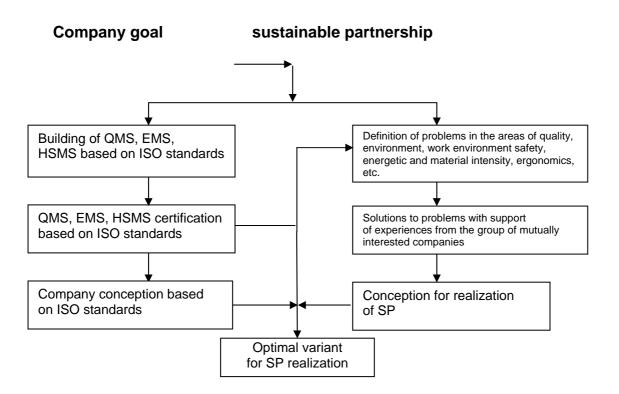


Fig. 1. Company goals and sustainable partnership (SP)

#### The unique contribution

The ideas mentioned above express opinions on the inevitability of change in the theory and praxis of management in our companies by respecting a new approach – **SP**. SP must find a solid space in all phases of management: in planning, in organizing, in leading people, in communication, in decision making, and in control. From this point of view it is necessary to support change in the approaches of company owners and employees, and to introduce new approaches to particular activities and processes for support of scientific research activities of universities, with the aim of building connections for implementation in entrepreneurial spheres.

## Conclusion

New approaches by management are required in the Slovak Republic, particularly due to changing business dynamics, increasing investment risk, increasing capital demands, the inevitability of decreasing energetic and material intensity in products and services because of the need for sustainable maintenance of superior environmental standards and security, and ergonomic concerns. The ideas of a company's management about the company's current and future purpose are called its mission. The mission has to respect the concept of **Sustainable Partnership** in the new circumstances of the current economic and social climate.

## **References:**

- [1] SAKÁL, P. a kol. *Strategic management in the managerial praxis*. Trnava: SP Synergia, 2007. ISBN 978-80-89291-04-5
- [2] JAHNÁTEK, Ľ. Support of the sustainable energetic solutions in all economy sectors. In *Enviromagazine*, 2007, 4, p. 5-6, *Attachment Enviromagazine*, 2007, 4, p. 4-16.
- [3] HAJNIK, B., RUSKO, M. Environmentally oriented personal management in the managerial praxis. Trnava: SP Synergia, 2004. ISBN 80-85599-32-5
- [4] STIGLITZ, J. E. Other way to market. Searching for alternative to the actual globalization form. Praha (Czech translation): Prostor, 2003. ISBN 80-7260-095-8
- [5] HATIAR, K. a kol. *Ergonomics and its usage in the corporate praxis*. Bratislava: EKOVYS, 2003. ISBN 80-968689-2-6
- [6] MAJKOVÁ, M. Possibilities for financing of small and middle companies in the Slovak *Republic.* Brno: TRIBUN, 2008. ISBN 978-80-7399-590-4

## **Reviewers:**

Jozef Mihok, Professor, PhD. - DMD GROUP, a.s. Trenčín Vladimír Soták, Assoc. Professor, PhD. - Department of Technical Education, UKF PF, Nitra