

CONCLUDING CONSIDERATIONS

Project **POSSIBILITIES OF TECHNOLOGICAL RESTRUCTURING AND DEVELOPMENT OF ECONOMY IN MONTENEGRO** covered productive economic branches (energetic, metallurgy, production of machinery, forestry and wood processing industry, agriculture, civil engineering) and the environment. One of the sub projects tackles separately the high technologies - conditions, development, transfer and application.

In a number of sub projects, where applicable, treatment was done by a unified approach consisting of the following parts: (I) Review and analysis of existing conditions, with a special consideration of evaluation of attained level of technological development; (II) Possibilities of restructuring, in scope of which the following issues are elaborated: improvement of production through modernization and reconstruction, improvement of existing and development of new products on basis of existing processes and development by introduction of new, mainly classic processes and products; (III) Application and development of high technologies, materials and products and possibilities of connection with and fitting in the programmes of technological development in highly industrialized countries of the world.

Survey and analysis of existing conditions have been treated in details and they indicate a full understanding of obtained level of technological development as related to the same or similar field in developed countries of the world. It is mainly determined by age and origin of technology, manner of its exploitation and competitiveness of products (for their production price and quality). At a first sight rather favourable evaluation may be questioned by the fact that the price of our presence on (wider) market is using of the natural resources (ores, forests, electrical energy), and low evaluation of labour.

One gets the impression that the knowledge, ideas and project documentation are not the limitation to restructuring and development of economy through the before mentioned but not sufficient condition in majority of

economical fields, as long as we are talking about the existing and alternative classical technologies, materials and products. Thus the estimate that this level of production structure change and development should be dealt with and treated by some fields of economy, respectively the representatives (executives) of the enterprises.

Application and development of high technologies, materials and products have got a very different treatment in some fields of economy and/or with some authors who finally, although informally, are qualified and informed spokesmen of approaches to these issues in respective branches. That may be explained in various ways: (a) by different suitability of specific branch for fitting in and accepting the high technologies, (b) different technological level of present production and (c) various relationship and aspirations towards the high technologies. It is quite certain that the level of knowledge has nowhere and never been "sufficient" once and for ever, and the number of professionals dealing with these issues or projects in high technology field is especially insufficient. There is no global approach and programme of development of science and technology, therefore the organization, of otherwise large number, of institutions with significant equipment, are without right conception they have got inadequate exploitation of their capacities both for scope and level of application. The impression is that the bigger technological potentials and technological level of equipment and knowledge are, the "more isolated" and less fitted into the process of reproduction they are. By all means here the thesis of critical amount of knowledge is (partially) valid, as well as the thesis that the penetrations in technological development (almost at all) may not be made in the environs of low technological (and educational) level. However, this is not the reason for absence of activities in this respect.

For sake of understanding of our position in this respect, we would remind and propose that it is possible to establish connection between the high technologies and existing economic branches as follows:

1. **NEW MATERIALS TECHNOLOGIES** may be developed on basis of mineral resources, industry of aluminium and steel and chemical industry. Civil engineering, machinery construction and electric industry may add to this process and its results.

2. **BIOTECHNOLOGY** may find their application in development of forestry, agriculture, marine biology, medicine, environmental protection.

3. **INFORMATION TECHNOLOGIES (MICROELECTRONICS, COMPUTERS AND TELECOMMUNICATION)** simply have to enter not

only the productive branches of economy but practically all the pores of economic and social life of the Republic. It is necessary not only for preserving the competitive capacity but also for maintaining the communication with developed world, which is impossible without it. It is not realistic that we can deal now with hardware from the domain of these technologies, what assumes more significant production of components, fits and devices/equipment, but one should not neglect the existing structure and capacity of electrical industry.

4. **ENERGETIC TECHNOLOGIES** are irreplaceable for monitoring and development of such an important economic branch as the energetic in Montenegro is.

5. **FLEXIBLE PRODUCTIVE TECHNOLOGIES AND ROBOTICS** are the technologies dealing with large scope production, what does not correspond to the structure and scope of the economy of Montenegro. However, some already present research activities, wide possibility of application (and elaboration of elements) of this technology, as well as its perspective in replacement of human work indicate the justification and need of monitoring the developments in this field. Mechanical industry would be the first potential holder of possible materialization in this field.

Finally, it is quite justified to constitute the project which will have a permanent task - **INVESTIGATIONS OF POSSIBILITIES AND PRIORITIES OF TECHNOLOGICAL DEVELOPMENT (ECONOMY) OF MONTENEGRO**, in scope of which five mentioned technologies would be followed up, not necessarily equally, which would attract the interests and possibilities of economic instrumental and staff potentials in these fields from Montenegro.

In return, (some) necessary information would be received: diffusion of knowledge; proposals, choice and treatment of priority research, experimental-developmental and investment - development ideas; directing to international projects and contacts; evaluation and verification of projects; development of staff and team work etc. A special contribution would be reached in maintenance and increase of level of use and connecting of the potentials (equipment, methods and staff) of existing research-development and educational institutions in the Republic.

It was not opportune, not even possible, to evaluate (and especially not deny) the chance to some economic branches in high technologies, respectively without them. What has been trusted upon is a global estimate that our economy and society through their development will inevitably have an in-

creased demand for high technology products (hardware and software), so that in return it has to be organized in order to compensate that - again in high technology products, and they, before all, may be (new) materials. This would enable preserving of balance of exchange (of goods and services) with foreign countries. In other words, existing import oriented production will not be enough to just preserve; it will also require restructuring in a way which will enable it participation in products of high technologies. This is the way to safeguard the balance of sources and support exportation of services (tourism, maritime economy) opposite to growing demands for import of high technology products for common consumption, social activities and economical development.