

## RESEARCH IN POSTCOMMUNIST EUROPE

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The transformation of the economy from its former centrally planned form to a more democratic free market is crucial for the countries of postcommunist Central Europe. It goes hand in hand with the change of the totalitarian, centralized political power towards a pluralistic democracy, and one can not be completed without the other.

This transformation concerns every realm of the economy. The main problems, of course, are the change of the heavy industry which in Slovakia served predominantly military purposes, the revival of agricultural production without the continuous influence and financial support of the state, as well as the privatization of the overwhelming share of means of production. Trying to solve these pressing problems, the difficulties of research establishments, as non-profit, state-owned, and centrally planned and financed institutions are, at present, only of secondary importance.

Nevertheless, the question of the future of research remains on the table. How can research be organized and conducted in these former socialist countries, where there are no financial means even for much more important projects? On the other hand, it would not be wise to let the thousands of highly-qualified scientists, and the expensive, more or less modern and usable equipment, instruments, and buildings etc. go down the drain. Even in the most advanced countries such as the USA, Great Britain or France, the state is the main user and at the same time financer of the kind of research, described by the somewhat inadequate words "basic", or "fundamental". Of course, applied research, as that done for the automobile industry, development of pesticides and new alloys, or meteorology are paid for by their users. But how can the necessary extent of research, for example, in biology or health care be retained?

There is an array of highly trained specialists available in the central European postcommunist countries, especially in Czechia, Slovakia, Poland, Hungary. The research facilities, buildings with proper infrastructure, equipment, chemicals and glassware exist; what is necessary, is only the financial means for continuing research, but in more meaningful ways and towards more realistic aims.

The solution, as it seems now, is the privatization of the research facilities in ways similar to those used for factories or agricultural plants. The research institutes are, in fact, producers of ideas and information, just as factories produce

merchandise. The value of these products of the research institutes, offered on the free market of ideas should be paid for by its users, the customers.

In the course of the first wave of voucher privatization in Czechoslovakia in 1992 about two dozen research institutes were turned into shareholder corporations and their shares were offered to citizens, who, if they invested their "voucher points" in the shares of these institutes subsequently became their shareholders or owners. Surprisingly enough, people were greatly interested in the ownership of research institutes. The investment of "points" into research institutes has been at least comparable to or even exceeded the interest for similar enterprises, such as publishing houses, or packing and transport companies.

The shareholder - owner of a research institute should decide on what marketable ideas or other products his institute should offer on the free market. For example, in social research it could be polls of public opinion prepared for daily newspapers; measurement of concentrations of harmful substances in the air, water, soil or food for either state-owned or private environmental protection agencies; objective toxicological testing of new chemicals, food additives, pesticides for their respective manufacturers, as required by law; epidemiologic studies seeking to elucidate the relationships between the style of life and certain diseases for insurance and health-care organizations; or preparation of specialized computer software programmes for every realm of social and business life, just to name a few of the possibilities.

There is no doubt, that the products of human intellect are both continuously requested and high-priced in any truly democratic society. Even if the state remains one of the main customers of research institutes, e.g. in health care research, the ideas and data produced by these organizations could be sold internationally, too. The Institute for Scientific Information, thriving on the astonishingly simple but fruitful idea of summarizing the contents of scientific periodicals and utilizing the citations in papers, as well as the success of the Institutes for Genetic Engineering and Technology are ample examples of the profitability of good ideas discovered at research institutes which are able to provide the necessary profit.

Even more, the copyrighted products of intellectual efforts, when owned by a certain research institute, could be sold many times over in different countries, to different customers just as a book written by a successful author or a popular song. This is one of the peculiarities of this particular product "information" - its value does not diminish with multiple use. If a factory produces a screw or a shoe, it can be sold only once; the valuable information gained by means of research can be sold many times thus producing multiple profit. No doubt, the results of research - that is, usable results of necessary research - could pay for themselves richly.

However, what is necessary, is a change of attitude of the owners and managers of research. In centrally planned economies research institutes were told by the planning centre what to do, how long to do it, and what results were

expected. This should not be the case any more. The management of a research institute should actively seek out problems specified by certain customers, alter its own structure, personnel, and equipment in order to satisfy the needs of the customer. They should be prepared to conduct specific research, make the ordered, necessary analyses, and in short, to produce the results requested by their customers.

In centrally planned society, research had been conducted in an "ante" way: The heads of an institute suggested a proposal of what to study to their central office. The higher boss, who usually did not possess the specialized knowledge needed to evaluate the impact of the research or the means necessary for its conduct generally said "yes" to the suggestion and assigned the requested sum of money to the institute for their work. In the Procrustean bed of the five-year-plan situations sometimes occurred, that, for example, a research institute elaborated a method for the determining the presence of a harmful pesticide in the air even when the manufacturing of this compound has been stopped three years earlier and the product was prepared only for export, that is it had not been used in this country for many years. Thus, it was clear to everyone interested that the results of work would never be used, but the research would be conducted as it had been planned for three more years.

Once a certain research project had been approved, nobody ever cared whether the results would be used, or to ascertain whether it has been appropriately finished and to what results the intellectual effort led. Sometimes it even happened that two different research institutes in the same country worked on the same project, without even knowing about each other's efforts. After two years of conducting such parallel research someone at the central planning office became aware of the situation and simply stopped one of the two projects. When the pressure for producing results, or some other real output from the money spent became too strong, the "clever" scientists "planned" the utilization of their work for the distant future, so that no higher office could bother their "sine cura" places at the research institute. For example, a new kind of protective paint developed at a research institute should have been used, according to the planner, no sooner than five or even ten years after the date of the proposed end of the research project, that is, in the next five-year-plan period. In the meantime, anything could have happened, which might hinder the manufacturing or use of the paint. Either a new, better paint could have been developed abroad, or the manufacturer of the paint lost interest in the results of the research, or somebody in the chain of command retired and did not push the project anymore, or the results could have been simply and silently forgotten.

Privately-owned research should provide its results in a "post" way. That is, the customer sets his goals (for example testing the genetic toxicity of his new pesticide), and provides the research institute only with samples of his compound. The institute performs the necessary tests and reports to the customer, who, in

turn, pays for the work already done, if he accepts the results as relevant and meaningful. That is, as is usual in the business, the customer pays after the accomplishment of the task.

Even the finances necessary for the performance of the requested research could be obtained by the institute in a "businesslike" manner: it can be borrowed from a bank. After the successful research results are sold, the institute could repay the bank and divide the net profit among its shareholders.

In this way, privatized research, organized on businesslike principles could be part of the free enterprise system and produce meaningful and necessary information to its customers - for profit. Of course, both sides could benefit - the research institute and its employees as providers of information, as well as the customer, its user.

#### REFERENCES

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