## Elaboration of Romanian RDI Strategy 2007-2013 within the Framework of the National Foresight Exercise; www.strategie-cdi.ro

A consortium led by The National University Research Council (CNCSIS) and the Executive Agency for Higher Education and Research Funding (UEFISCSU), along with various 27 entities (universities, national research institutes, research centers, The Romanian Academy, SMEs etc.) is currently involved in carrying out a project aimed to design the Romanian RDI national strategy for the 2007-2013 time-horizon. It is worthwhile noting the unprecedented complexity and the novelty of this initiative as the elaboration of the domestic RDI strategy is seen as linked to the first-edition of a Foresight exercise in Romania. The sectorial project "The Elaboration of the National RDI Strategy 2007-2013, based on strategic planning" is financed by the Romanian Ministry of Education and Research; it is broadly recognized as of vital importance for shaping a more-effective institutional structure of the Romanian research, development and innovation system.

As obviously seen from practice, the current ability of the Romanian RDI system to provide valuable output is poorly reflected in economic performance, in comparison to the European overall situation. Unfortunately, the dissipation of financial or even human, material, and logistic etc. resources has been accompanied by the absence of an integrated monitoring and evaluation system of the public investment in RDI. Nevertheless, Romania should be, at least, *reactive* to the EU social - economic policy trend, where the RDI field is a key element of the European development model in which both, knowledge and innovation represents one of the basic pillars of the Lisbon Strategy. Additionally, the EU accession supposed to happen in 2007 imposes the domestic authorities of the RDI system with the urge need to comply to specific European requirements.

The intricate relations that relate, nowadays, science and technologies to society both in the contemporary European context and, also, in the globally socio-economic world, require an appropriate investment model addressed to science and technology field. Furthermore, the decisions makers have to be able to select those industrial and social research directions (able to be supported by the Romanian economic potential) that, on a long term basis, would have to turn the science and technology applications into successful innovations, eventually, into marketable competitive products and services and finally, into highly- quality and improves living standards. As investments in science and technology become more expensive, the policy makers from both public and private sector ask for more and more reliable systems that allow a faster detection of the relevant socio-economic triggers, a comprehensive risk assessment, related to the dynamics of scientific discoveries and technological trajectories.

Having an inherent anticipative, participative, interactive and integrative character, the **foresight methodology** has been proved, in the past decades, to be one of the most appropriate approaches for the above mentioned needs, complementary to classic decision making and planning processes. Besides, the different national European RDI policies are based (both implicitly and explicitly) on a commonly agreed perspective upon the future of science, technology and society. Therefore, the open coordination approach in Europe calls for using **cooperation in foresight matters**, already seen as an important part of the effort of structuring the European Research Area by making it functional.

The term "Foresight" is used to describe a type of prospective exercises that take into account periods longer than 10 years, going beyond the regular business planning horizon. Technology foresight looks at the present and future of science in order to identify emerging factors of change, and the types of scientific research and technological development likely to yield the greatest economic,

environmental and social benefits. Therefore, most desirable type of prospective investigation is **socio-economic**, involving expertise from the academic community, public sector, private sector and civil society members.

The foresight process provides planners and decision-makers with a process and a product that help identifying potential links between present day policies / actions, and future outcomes. Its value lies in the attempt to capture broadly based intelligence on a long-range time horizon. Choosing the foresight exercise (as a systematic and rational examination tool) deals with the emphasized purpose to give strategic orientations adequate to all policy making processes.

The elaboration process of the national RDI strategy involves a constant determination and scientific-driven methodology aimed to examine long-term development options, to consider possible feasible scenarios for the future and to confront them to the current reality in the Romanian RDI system. The first step in developing a foresight exercise is to identify possible changes for the society, individuals, technology, economy, environment, political structures, and regulation regimes. Changes in the external environment influence the internal environment and political decisions about resource allocation, and consequently implemented measure regarding those critical issues previously identified. Therefore, the starting stage of making a comprehensive analysis of the RDI system is completed then with a broad data-gathering process, based on experts' interviewing and stakeholders' consultation, in identifying the thematic areas and domains of interest for Romanian RDI field for the medium and long term. Then a prioritization procedure is applied to state the strategic objectives and to facilitate designing a Delphi-like survey. The obtained results should allow building a set of alternative scenarios for the reaching the desired states of future. In order to define several alternative scenarios, trends of change and critical issues must be determined through an exhaustive investigation of the present, along with the studying the convergent trends that can be prefigured from the external environment of the RDI system.

The specific implementation of the Romanian Foresight exercise will go through the following steps:

## Preparing the foresight process

(1) Identifying investigated fields - it is aimed, through a systematic collection of input information, to define a set of domains of major interest for Romanian RDI system, having associated approximately 10 directions for further investigation, that would allow, after deliberation in experts' panel, setting up the priorities for action in each of the fields identified.

In this respect, on 16 of January 2006, a workshop was organized with almost 140 experts and well-known personalities in science,

fundamental research, applied research, etc. mainly as representatives from the a large number of institutions and organizations with interest in the RDI system: The Romanian Academy, the National Research Institutes, the major universities or the higher education institutions, County Regional Development Agencies, The Trade and Industry Chambers, various professional associations as the Romanian Businessmen Association, ADSTRA, The Foundation for an Open Society etc. and also some representatives of the national authorities in the RDI system etc. The objective was to identify several main domains of interest for the medium and long term for the Romanian RDI system, along with some possible restructuring organizational and institutional transformation of the corresponding The event was prepared by several consultation stages with the Romanian scientific and academic community (during the last 2 months of the 2005 year) and by opening an on-line survey on the project's web site: <a href="http://www.strategie-cdi.ro">http://www.strategie-cdi.ro</a>.

