Introduction

These proceedings provide in paper format a number of presentations from the workshop on *"Policies and Practices: Dialogue on S&T between the European Union and the Russian Federation",* held in Vienna in Autumn 2000. The workshop was primarily organised by the Austro-Russian Working Group on S&T, one of three working groups implemented under the bilateral Agreement on Scientific and Technological Co-operation between Austria and the Russian Federation. Its aim was to exchange information on the following topics and to discuss respective strategies to overcome existing barriers.

- *Changes and trends in Russian S&T:* What is the status of the Russian S&T system and how can it be assessed? (Session 1);

- *S&T policies as a factor for competitiveness:* What are the prevailing policies and instruments for enhancing the Austrian, Russian and European R&D and innovation systems, and how are they implemented? (Session 2);

- *International R&D co-operation between Russia and the EU:* What have been the success stories, what are the barriers and what perspectives exist? (Session 3).

The first session looked at general trends in Russian S&T, governmental R&D funding priorities and respective national Russian R&D priority programmes. Developments in critical technologies and areas of excellence were also examined, referring to industrial research efforts as well as the pattern of innovation in Russian industry.

Under the second session, topics such as R&D and innovation as competitive factors affecting regional development in a globalising world, and ways to foster the emergence of European R&D and innovation systems, were examined. Instruments to bridge basic and applied research with industrial R&D and innovation, the means to detect, formulate, focus and serve the technological needs of industries (especially SMEs), and developing understanding of technology policy were also discussed.

The third session emphasised topics such as operational problems in pan-European RTD projects, pan-European industrial co-operation in high-tech sectors, as well as vital areas for future international RTD and innovation co-operation between the European Union and the Russian Federation. A special focus was directed towards international RTD co-operation under the European Framework Programmes for RTD and the role of INTAS.

The target groups of the workshop were science management officers, political gate-keepers and decision makers, as well as researchers with outstanding experience and knowledge in international RTD co-operation policies and instruments, from the Russian Federation and the European Union. The workshop was designed as a platform for open information exchange and discussions. In each of the three sessions, which were steered by a reputable chair-person and a discussant, a number of well-targeted presentations were given. A selection of these are provided in these workshop proceedings.

The papers included in the volume are structured in line with the above three sessions.

The first paper by Dr. Leonid Gokhberg, introduces readers to recent trends in the Russian R&D sector in transition to a market economy. It provides a concise overview of the macroeconomic situation in Russia and trends in major R&D indicators, and concludes with potential future scenarios for Russian S&T.

Dr. Richard Burger reflects on some key questions related to identifying a new role for the Russian S&T sector, both domestically and globally, *vis-à-vis* the Soviet legacy and contemporary obstacles to innovation. Particular attention is devoted to discussing the future of state-supported R&D institutions.

The pattern of government budget R&D funding, which remains the largest source of R&D finance in Russia, is the focus of the next paper contributed by Dr. Natalia Gorodnikova. Description of the existing mechanisms of selecting S&T priorities is combined with a comprehensive statistical analysis highlighting certain inefficiencies still to be resolved.

Furthermore, it is not just R&D that makes innovation possible, more complex action is required. This is discussed in the paper written by Dr. Leonid Gokhberg and Dr. Irina Kouznetsova. As this paper highlights, industrial innovation has not yet reached an adequate scale in Russia, and this is a great challenge to national policy-makers.

An overview of Russian S&T and innovation policies provided by Prof. Levan Mindeli opens the second section of the volume. Recent governmental initiatives are described, including new legislation, institutional arrangements, financial instruments and indirect incentives that are intended to increase the efficiency of the national innovation system.

Dr. Eva Buchinger responds with an analysis of Austrian S&T policy. Its major objectives and problems are addressed. International readers are encouraged to learn from impressive and successful examples of specific policy tools aimed at strengthening networking and knowledge infrastructure.

The experience of the Russian Foundation for Basic Research is comprehensively reviewed in the paper by Prof. Michael Alfimov, Dr. Vladimir Minin and Dr. Sergey Tsyganov. A

model applied by this largest Russian scientific foundation, to bridge basic research and innovation and promote the implementation of scientific results, deserves particular appreciation.

The largest, and perhaps most thought provoking section of the proceedings, refers to the discussion of international RTD co-operation. It starts with a paper by Dr. Alexander Sokolov, who attempts to analyse the priorities and implementation of S&T co-operation between Russia and the EU. A comparison of both sides' S&T priorities contributes to decision-making on the most appropriate areas for collaboration. The proposed methods and tools to improve the infrastructure for S&T co-operation will hopefully help to overcome existing obstacles.

The next three papers included in this section represent valuable national experiences in promoting international S&T co-operation programmes. These may have substantial implications for policy makers and analysts internationally. Prof. Manfred Horvat concentrates on the operational aspects of implementing collaborative activities, based on the experience of the Austrian Bureau for International Research and Technology Co-operation (BIT). The strategy of the EU RTD Framework Programme is considered, and a respective mission for interfacial organisations is specified, emphasizing internationally relevant instruments to support national participation in international collaborative S&T activities.

The British Council science programme in Russia is another example of an effective approach to international S&T co-operation. As Dr. Elizabeth Bell points out in her paper, its effectiveness is driven by strong connections to national goals as well as close interactions between policy makers, scientific communities, industries, and the general public, thus providing for a broad consensus of interests. Current projects involving science policy development, technology transfer and innovation, education and science communication, and a future British Council science portfolio in Russia, are discussed.

Dr. Julie Mebes draws lessons from the record of research collaboration between the Netherlands and Russia. The political and institutional framework for such co-operation, its implementation scheme and evaluation results are described. The emphasis on flexible and non-bureaucratic procedures and direct partnerships between research teams, has proved to be fruitful, and is an important message of this paper.

The discussion concludes with an analytical overview of joint R&D projects between the EU and Central and Eastern European countries, accomplished within the framework of the two major earmarked EU programmes – INCO-COPERNICUS and INTAS. An original study by Dr. Klaus Schuch highlights the strengths and weaknesses of these programmes in the context of a comprehensive multivariable survey of project-by-project motivation

factors, know-how flows, management skills, and output utilisation rates. General conclusions are offered to improve programme planning and operational mechanisms.

The volume also contains several brief abstracts of workshop presentations that tackle either key policy issues (Prof. Hariolf Grupp and Prof. Ben Martin), or S&T co-operation aspects (Dr. Anneliese Stoklaska, Mag. Bernd Wohlkinger, and Dr. Saveliy Bashchinskiy).

It is our privilege to thank all the authors for their contributions collected in these workshop proceedings, as well as the session chairs and discussants whose role in moderating the meeting could not be underestimated.

From the numerous fruitful presentations and discussions during the workshop, and the further thoughts elaborated in these proceedings, we are convinced that more discussion is necessary. This will be needed to increase RTD co-operation between the Russian Federation and the European Union and its member states in the future, on bilateral as well as on multilateral levels. Thus, we are personally committed to the best of our abilities and knowledge to continue to contribute to a further *Dialogue on S&T between the European Union and the Russian Federation.*

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