

2009

Annual Report

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Applied Research and Communications • Fund •

Applied Research and Communications Fund 2009 Annual Report

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Introduction

As in previous years, in 2009 the activities of the Applied Research and Communications Fund (ARC Fund) focused on its two areas of expertise: innovation and information society. In both fields ARC Fund continued to aim at delivering practical results, building knowledge and competence in Bulgaria, and conducting relevant research feeding into adequate policy and strategy formulation.

ARC Fund Highlights in 2009:

- **Strategic analyses of national policy focused on research, innovation and information society.** ARC Fund prepared *Innovation.bg*, a landmark innovation policy report published since 2004, which is the only comprehensive tool that measures the innovation performance of Bulgarian enterprises and offers approaches to the development of innovation and entrepreneurial culture. For the fifth year in a row the report was presented within the annual National Innovation Forum.
- **Strategic analyses of EU R&D, innovation and information society policies.** ARC Fund's analytical capacity gathered momentum in 2009 as it undertook strategic analyses at EU level for the first time. Two studies, commissioned by the EU Commission – DG Joint Research Center – Institute for Prospective Technology Studies (IPTS), were conducted, the first one on the trends in public and private investments in ICT R&D in Romania and Bulgaria and the competitiveness of their innovation systems in the field of ICT (Public and Private Investments in ICT R&D in Bulgaria and Romania), and the second one was implemented within the ERAWATCH network (ERAWATCH: The Contribution of Regional Policies to the European Research Area).
- In 2009 ARC Fund's **Safer Internet** program expanded the scope of its activities after the combined *Bulgarian Safer Internet Center* was put into operation. In addition to receiving and processing reports about illegal and harmful to children content and conduct from the Internet hotline, the Center prepared and published information and awareness materials, held training courses and organized campaigns, roundtables and conferences.
- **Technology transfer and business support.** Over the year ARC Fund continued to offer a comprehensive set of services to small and medium-sized enterprises in the country, aiming to increase their competitiveness on the basis of new technological solutions and cooperation with science. In 2009 a total of 1,436 clients received specialized advice related to the funding of business, participation in European programs and finding business and technological partners. A total of 335 production enterprises were visited and consulted on the spot and comprehensive technological analyses and SWOT analyses were made at 80 of these.
- **Cooperation with countries outside the EU.** ARC Fund was awarded a second mandate (2009 – 2011) as coordinator of the *Eastern European and Central Asian Business Incubators and Technology Parks Network (ECABIT)*. In 2009 ARC Fund also worked actively with Western Balkan countries – an analysis of the research potential in the field of surface transport in Western Balkan countries was made, a competition for project ideas under the Seventh Framework Program (FP7) was

organized and held with the participation of 32 research organizations and universities from Bulgaria, FYR of Macedonia, Albania, Republic of Serbia, Bosnia and Herzegovina.

- In 2009 ARC Fund engaged in foresight activities aimed at **identifying new topics for scientific research** on which the EU Eighth Framework Program is to focus after 2014.
- **Active work with young scientists was a new element in the ARC Fund's work in 2009.** ARC Fund conducted a survey on the need of additional training and qualification of 50 doctoral students, young researchers, specializing and post-doctoral students at the Institute of Biophysics with the Bulgarian Academy of Sciences, the Biology and Physics faculties of St. Kliment Ohridski University of Sofia, as well as a training course dedicated to the EU Seventh Framework Program for Research and Technological Development and the EU Competitiveness and Innovation Framework Program.

PART ONE

Program Areas



Science, Innovation and Information Society

In 2009 ARC Fund considerably expanded its portfolio of activities in support of policy formulation and implementation in research, innovation and information society at national and European level.

Innovation.bg

Innovations are a priority field in which the Applied Research and Communications Fund offers expertise and its own policy building and impact assessment know-how. The summarized results from our own surveys and the conclusions made on this basis about the condition of the national economy's innovation potential and the opportunities for its future development are presented annually in the *Innovation.bg* policy report. Since 2004 the *Innovation.bg* report has been known to the public as the only comprehensive tool in Bulgaria, which assesses the innovation activity of Bulgarian enterprises and offers approaches to building innovation and entrepreneurial culture.

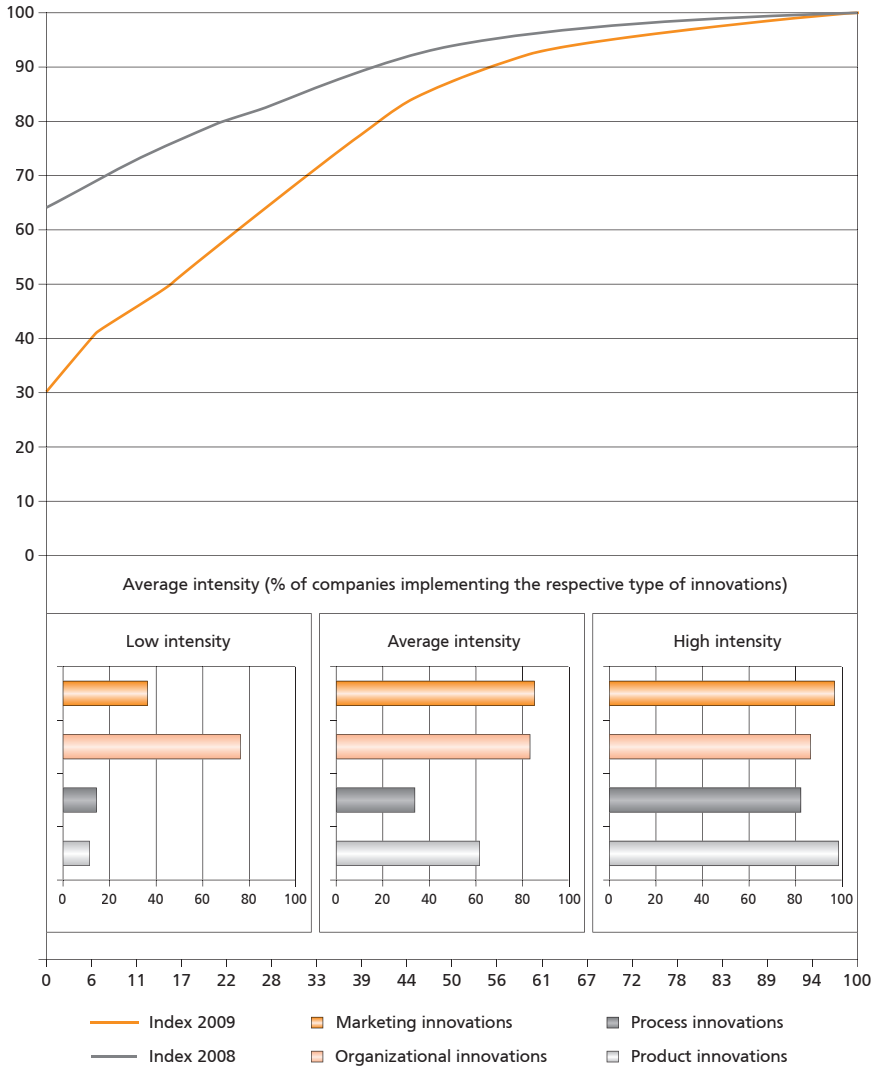
Along with the internationally recognized approaches for analysis of economic agent R&D activity (the OECD Frascati Manual, the European Commission's European Innovation Scoreboard), ARC Fund applies its own original methodology to assess the degree of business innovation activity, based on the understanding of the types of innovation and the degree of novelty of introduced innovation products and processes. The innovation index of the Bulgarian economy for 2008 developed on this basis had several fundamental findings: (see Figure 1)

- In two years (2006-2008) the total number of innovative enterprises in Bulgaria has risen by some 3 to 9 per-

centage points. The data from the index show that there is already a layer of about one-third of the companies (29-34 %), which consistently innovate every year, 90 % of which have an undiminished innovation budget, while half of them increased it in 2008 compared to 2007. Between 7 and 10 % of the enterprises innovate occasionally.

- Organizational and product innovations were the most frequent cases. A total of 70 % of innovative enterprises involved in more than one type of innovation simultaneously, while 18 % introduced product, process, organizational and marketing innovations simultaneously.
- The dominant type of innovation changes with the innovation intensity of enterprises. For example, organizational innovation is found most frequently in enterprises with weak innovation intensity, while marketing innovation characterizes enterprises of an average innovation degree. Process innovations are the most significant feature at the transition from average to strong innovation intensity degree.
- The market and enterprise competition are the most important factors reflecting on enterprise innovation activity. The more closed the market (both geographically and in respect to the participants in it) the less innovative enterprises are.

Figure 1. Innovation index of Bulgarian enterprises and leading innovations in Bulgaria



Source: Applied Research and Communications Fund, 2009.

The innovation index is calculated for the third year in a row and is based on results of the Survey of the Innovation Activity of

Bulgarian Business (INA) conducted in 2008, applying the methodology of the European Community Innovation Survey.

The third survey of enterprise innovation activity (INA-3) was conducted between November 3 and December 18, 2008.

Traditionally, the *Innovation.bg* report assesses Bulgaria's innovation potential in five fundamental fields:

- Gross innovation product;
- Entrepreneurship and innovation networks;
- Investment and financing of innovation;
- Human capital for innovation;
- Information and communication technologies (ICT).

The highlights and summaries in the report presented in the beginning of 2009 were related to the expected impact of the global financial and economic crisis on Bulgaria. In relation to the forecast difficulties in the provision of free financial resources, both for servicing current business activity and in the case of more venturesome innovation projects, several basic recommendations were made con-

cerning the conditions that the state has to provide and the national policy in support of enterprise innovation activity:

- The need of implementing a coordinated (integrated) national policy in the field of science, technology and innovation – subordinate to a clear assessment of the country's research and innovation potential, as well as consensus in respect to development guidelines;
- Establishment of a center of responsibility to coordinate the activity of the various public units included in the national innovation system and to make decisions on the definition and execution of the national research and innovation policy;
- Establishment of sustainable and effective interaction between the various players in the national innovation system.

For the fifth year in a row the *Innovation.bg* report was presented within the framework of the National Innovation Forum.

National Innovation Forum

The National Innovation Forum is a unique annual event for this country, which unites the efforts of all stakeholders aimed at discussion of the conditions for innovation in Bulgaria, as well as offering measures for their streamlining. The event passes under the auspices and with the participation of the President of the Republic of Bulgaria, the Prime Minister and numerous Bulgarian government ministers and deputy ministers.

The event has the objective to assess the achievements over the past year in terms of creating conditions for cooperation between companies and scientific

research in the country, as well as between Bulgarian and foreign organizations with the objective to promote the national economy and enhance the competitiveness of Bulgarian business by the introduction of leading new technologies, launching the production of profitable new products and R&D cooperation with foreign partners.

The forum discusses the need of management of innovation activities on both national and regional level in the context of a National Innovation Strategy and the European policies in the field.

Participants in the forum include senior officials in the public and private sector, members of Parliament, NGOs, business associations, companies, consultants, mediators and financial organizations, media, the European Commission (DG Enterprise and DG Research), academic and development organizations, the World Bank, the European Bank for Reconstruction and Development, leading international experts in the field of innovation, representatives of multinational companies.

The traditional *Innovation.bg* report is presented during the National Innovation Forum and the winners in the National Contest for Innovative Enterprise of the Year receive their awards.

Annual Innovation Award

The annual Innovative Enterprise of the Year Award is given to Bulgarian enterprises that have successfully introduced innovations or Bulgarian scientific accomplishments, thus transforming their operation mode and achieving sustainable economic effect. The innovation achievements of enterprises are evaluated by a panel on the basis of data from technological audits conducted at the applicant companies in advance.

The innovation performance of participant companies is evaluated by an expert panel and jury in two categories: (1) innovative small enterprise (with staff of



*Opening of the Fifth National Innovation Forum, February 24, 2009
From left to right: Zinaida Slatanova, Head of the Representation of the European Commission in Bulgaria; Georgi Purvanov, President of Republic of Bulgaria; Dr. Ognian Shentov, Chairman of ARC Fund Board of Trustees; Meglena Ploumchieva, Deputy Prime Minister of Republic of Bulgaria; Florian Fichtl, Resident Representative of the World Bank Mission in Bulgaria.*



Participants in the Fifth National Innovation Forum

Box 1: Fifth National Contest for Innovative Enterprise of the Year – distinguished participants

Awarded enterprises in the Fifth National Contest for Innovative Enterprise of the Year

Category small enterprise – (with a staff of fewer than 50)

- ORAK Engineering – first place in the category
- KEIT Ltd.
- Panteley Toshev Ltd.

Category medium-sized and large enterprise – (with a staff of over 50)

- Sparky Eltos AD – first place in the category
- Bianor
- Centromet



*The awarded participants in the Fifth Innovative Enterprise of the Year national contest
From left to right: Krassimir Stoyanov, ORAK Engineering; Stanislav Petkov, Sparky Eltos AD; Spas Spassov, Satrun Engineering Ltd.; Meglena Plougchieva, Deputy Prime Minister of Republic of Bulgaria; Georgi Purvanov, President of Republic of Bulgaria; Iliyan Nistorov, Centromet; Stefan Lilov, Bianor; Zhivko Zhelev, KEIT Ltd.; Panteley Toshev, Panteley Toshev Ltd.*

fewer than 50); (2) innovative medium-sized and large enterprise (with staff of over 50).

THE WINNER in each of the two categories is awarded a statuette – the symbol of the competition – made by sculptor Petko Arnaudov, as well as an honorary diploma.

The award ceremony for the companies distinguished in the Innovative Enterprise of the Year contest was featured in the framework of the forum. The awards were

conferred by the President of the Republic of Bulgaria Georgi Purvanov. The objective of the contest is to encourage innovation activities of Bulgarian enterprises, and attract the attention of the broad public to their innovative achievements. Innovative enterprises from all sectors of the Bulgarian economy, including information technologies, are eligible to participate in the contest. A company is considered innovative if it has developed and marketed new or advanced products/goods and services, and/or processes over the last three years.

Research of the trends in public and private investments in ICT R&D in Romania and Bulgaria and the competitiveness of their innovation systems in the field of ICT (Public and Private Investments in ICT R&D in Bulgaria and Romania)

The study gives a clear notion, based on solid quantitative and qualitative data about the dynamics of R&D in ICT in Bulgaria and Romania, about the relations between technological innovations in ICT, the models of ICT business, national conditions and international trends (such as globalization, trade, the comparative models of growth and so on) lead to European and worldwide distribution of

ICT and R&D activity. More specifically, the study achieved three main results: a) a comprehensive set of data; b) a technical appendix to the data, and c) a report on each state. The study comes in continuation and complements the previously implemented project of DG JRC-IPTS for EU-25, which informs about the EU policy in the ICT sector.

European Research Area

The concept of establishing the European Research Area was based on the efforts of many years to coordinate R&D in Europe and was endorsed by the European Lisbon Council in 2000. The initiative also received the approval of the Committee of Regions, which underscored their role in the development of a common area for research and development in Europe.

The objectives of the European Research Area are aimed at:

- Creating a European “internal market” for research.
- Achieving effective coordination at European level of activities including national and regional research, programs and policies.
- Implementation and funding of European-level initiatives.

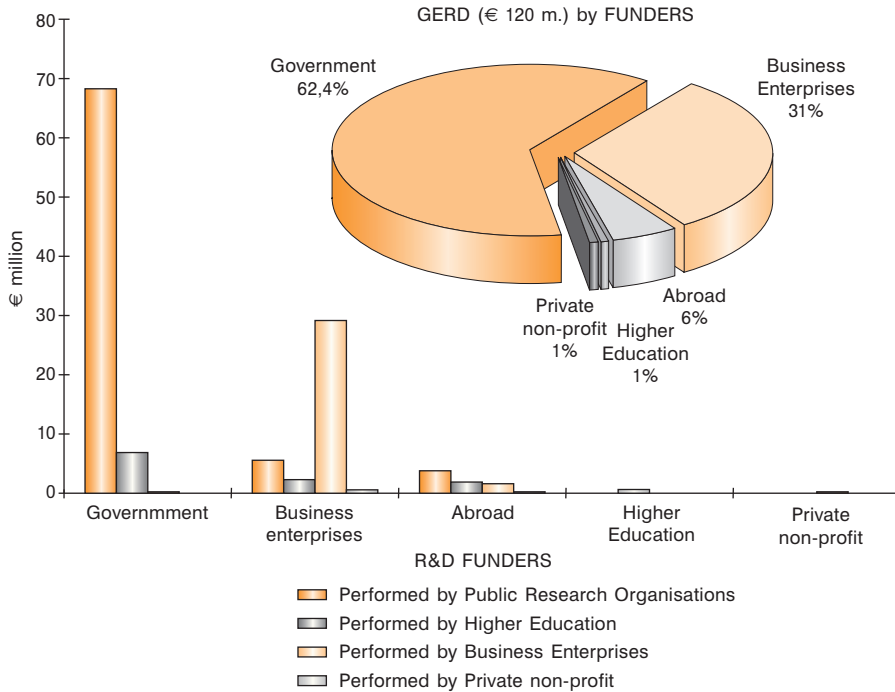
ARC Fund has been the national contact point of the **ERAWATCH** (ERA – European Research Area) initiative since its inception in 2004 and is a member of the **ERAWATCH** network, which provides Eu-

ropean institutions with information about research and development activities in the European Union countries. **ERAWATCH** is a pan-European initiative for collecting and using precise data at the formation of the various policies contributing to the implementation of the European Research Area. It provides structured and comprehensive information about national and regional research policies, players, organizations and programs. In 2009 the Applied Research and Communications Fund carried out several projects within the **ERAWATCH** network.

ERAWATCH: Baseload research inventory service III

The **ERAWATCH** initiative (<http://cordis.europa.eu/erawatch/>) has the objective of systematic collection and processing of a focused and consistent set of information and its publication on a Web-based platform which monitors the European, national and regional research structures, the participants in research and the research policies of each of the 27 EU members

Figure 2. RTD expenditures by sources of funding and sector



According to the latest data, in 2007 Bulgaria set aside 0.48 % of its GDP for R&D (€121 million), which is one of the lowest values in Europe. More than two-thirds of funding for R&D comes from the national government. The business sector contributes some 31%, 6% of the funding for R&D comes from abroad and a very small portion comes from the private non-profit sector and the sphere of higher education, each of which contributes 1%.

Source: Eurostat.

and the seven states associated to the Seventh Framework Program (Croatia, Israel, Iceland, Liechtenstein, Norway, Switzerland, Turkey), as well as the seven countries outside ERA (Brazil, China, India, Japan, the Republic of Korea, Russia, USA). The initiative is a research-focused Web-based platform which is developed in parallel with the innovation targeted INNO-Policy TrendChart (<http://www.proinno-europe.eu/>). In 2009, for the third year in a row, the Applied Research and Commu-

nications Fund collected and presented information about the Bulgarian national and regional research structures, stakeholders and policies. The country's profile is focused on the main mechanisms of developing research policies in Bulgaria, the most important political documents, the reflection of Bulgaria's EU membership, the regional dimension of research activities and the activities of the main institutions involved in research – state and private institutions and universities.

ERAWATCH: European Observatory of Research-Active Universities and National Public Research Funding Agencies

Launched in 2009, the project covers the EU member states, Associate countries and countries outside the EU. The Applied Research and Communications Fund is the official correspondent for Bulgaria and participates in the initiative to establish the first Web-based European observatory of research-active universities, which will offer a unique and developing platform, adaptable to the needs of the various stakeholders. The observatory will allow the implementation of three fundamental research activities: characterization, monitoring and analysis. First, it strives to characterize the variety of research activity at European university leaders in research in certain scientific fields. Second, it monitors university research activity, and finally, it is aimed at providing data enabling analysis of the factors which influence the top achievements of research-active universities and the changing character of universities with time.

The observatory collects and provides information about the national state agencies for funding research, as well as evidence of the means of providing the financial stability of university research. This evidence will help identify the fields which require greater consistency for upgrading university financial management, as well as promoting more large-scale schemes of financial stability and research funding.

ERAWATCH: Contribution of policies at the regional level to the realisation of the European Research Area

The project aimed to collect information about 16 EU regions and to analyse their progress in respect to their integration

in the European Research Area (ERA), with a concrete focus on inter-regional researcher mobility, joint programming in the field of research policy and international cooperation. The analysis focused on the set of policies which were introduced in support of the integration of regions in ERA, along with an assessment of the progress achieved so far in respect to ERA at regional level and analysis of the contribution of the regions or regional groups to ERA. The four analytical reports prepared in the course of the study present the implementation of current regional R&D policies in support of ERA, what evidence exists of regional integration in the field of science, what their activity in the field of science and technology is and what the trans-border cluster initiatives are. ARC Fund was the coordinator of this project, commissioned by DG JRC – IPTS.

BULGARIA, Analysis of policy mixes to foster R&D investment and to contribute to the ERA

The report makes a review of the national research and development system and presents an evaluation of the latest policy revisions. It is focused on the obstacles before investments in R&D, the opportunities and the risks generated by the Bulgarian set of applied policies, the labor market for researchers and the management of R&D infrastructure.

The main challenges before the national research system are overcoming the obstacles before private investments in R&D and the lack of long-term investments in research, identifying the driving forces of knowledge demand, guaranteeing the quality and applicability of knowledge produced, knowledge exchange between universities, professional and business sectors, as well as enhancing the absorptive capacity of knowledge users.

Table 1: Summary assessment of strengths and weaknesses of the national research system

Domain	Challenge
Resource mobilization	Justifying resource provision for research activities
	Securing long-term investment in research
	Dealing with barriers before private R&D investment
	Providing qualified human resources
Knowledge demand	Identifying the drivers of knowledge demand
	Coordination and channeling knowledge demand
	Monitoring of demand fulfillment
Knowledge production	Ensuring quality and excellence of knowledge production
	Ensuring exploitability of knowledge
Knowledge circulation	Facilitating circulation between universities, PRO and business sectors
	Profiting from international knowledge
	Enhancing absorption capacity of knowledge users

Support for policy development in the field of information society

In 2009 ARC Fund continued to carry out surveys aiming to support state policy in the field of information society. With the support of the Bulgaria Fund, ARC Fund implemented a project titled *e-Bulgaria 2020: Improving ICT Policy Environment*. An empirical study was conducted in 2009, focused on the provision of broadband Internet access in nucleated settlements in Bulgaria. Preliminary results were pre-

sented at the Bulgarian Economic Forum (November 26-27, 2009), as well as to representatives of the Ministry of Transport, Information Technology and Communications. Broadband Internet access was the main focus of ICT policy in 2009 while the statistical information provided by NSI/Eurostat does not correspond to reality by tradition.

Technology transfer and business support

Enterprise Europe Network – EEN

From the beginning of 2008 the European Commission's two largest business consulting networks with a history of more than 10 years – the Innovation Relay Centers Network and the Euro Info Centers Network – joined efforts and were integrated to form the new Enterprise Europe Network. The European Commission considers Enterprise Europe Network an important European and national public service in the field of innovation, technology transfer and support for small and medium-sized enterprises at European and national level, as well as a key element in achieving the objectives of the Lisbon Strategy at macro- and micro-level. It is a key **tool of the EC for implementing its policy in support of small- and medium-sized enterprises (SME)**. All enterprises, R&D organizations and institutions have equal opportunities to access and resort to the services of the network – there are no sectoral or territorial limitations or preferences. Enterprise Europe Network in Europe includes 557 information and consulting centers with over 4,000 experienced employees.

The network in Bulgaria offers the entire spectrum of services for business, which are also offered by the European network, as well as an additional set of services specific to this country – information to companies about participation in the operational programs funded by the Structural Funds; specific financial sources and tools; problems related to the application of European standards, as well as many more subjects related to Bulgaria's EU membership.



- In seeking new markets, the network experts working at ARC Fund assist finding trade partners in other countries depending on client objectives and interests. Network consultants visit the enterprises and help determine and define precisely the type of partner sought, the type of partnership and respectively the technological solution sought or offered. The outcome is business profiles which are distributed through powerful databases to firms in and outside the EU. The technological or business profile may be aimed at concrete countries in search for clients or partners from particular industrial sectors. The Enterprise Europe Network consultants process the expressions of interest received in the technological and business profiles, check the reliability of the information and, where necessary, provide assistance in the course

of correspondence and negotiations. Any trade information a company places at the disposal of network consultants which is considered classified is treated as such. The greatest strength of the Enterprise Europe Network lies in the number of organizations and specialists it includes. Using its services helps to overcome the distance to a potential partner abroad, as well as to provide that partner with a potential service. The experts employ good business etiquette, combined with profound knowledge of the local market.

- The experienced network specialists at ARC Fund offer individual assistance aligned with the concrete needs and demands of companies and R&D organizations. Its consultants visit the respective company in order to determine the concrete needs of production together with the managerial team, on the basis of which suggestions for a further strategy, instruments for seeking potential partners are formulated,

with protection of intellectual property rights in mind.

- Enterprise Europe Network organizes about 12,000 brokerage events and company missions every year. These are often held along large fairs and exhibitions. Such events help companies meet potential partners. During the Plovdiv International Technical Fair of autumn 2009 ARC Fund coordinated through Enterprise Europe Network – Bulgaria the organization of a technological and cooperation brokerage event. Companies and R&D organizations seeking technological and business partnerships from 9 European countries took the opportunity to hold bilateral meetings arranged in advance. A total of 60 companies and organizations from Bulgaria, Italy, the Czech Republic, Turkey, Russia, Hungary, Germany, Romania and Macedonia held bilateral meetings. The opportunity to become acquainted with the technological and business



Bilateral business meetings during the autumn International Technical Fair in Plovdiv

profiles of the other participants prior to the meetings allowed companies to utilize business contacts to a maximum by discussing different partnership opportunities. There was serious interest in the Network's representative from Russia, expectations being that in the near future the Network would provide constant exchange of information and contacts relevant to technological and business partnership between Bulgarian and Russian enterprises and R&D organizations;

- Again in 2009 the Bridge Economies consortium (Enterprise Europe Network – Italy), in cooperation with ARC Fund (Enterprise Europe Network – Bulgaria) held an International Brokerage Event for business meetings in the sphere of renewable energy sources and energy efficiency in the framework of EnergyMed in Naples. Bulgaria was represented by 4 companies and 2 organizations.
- Once again Enterprise Europe Network – Bulgaria (ARC Fund), in cooperation with HELPFORWARD – Greece, organized on November 26-29, 2009, an international brokerage event in the field of IT within the InfoSystem 2009 fair in Thessaloniki, Greece. The fair is organized annually, with this year's edition featuring a special section dedicated to technologies applicable in state administration and local governance, in addition to ICT. A total of seven Bulgarian companies took part in the brokerage event, successfully holding numerous meetings with potential business partners.
- In the period between March 3 and 8, 2009 Enterprise Europe Network – Bulgaria (ARC Fund) participated in the organization of international brokerage days in the field of ICT, Future Match 2009, for the eighth year in a row. The event was held in the framework of the largest international fair in



Bilateral meetings during CeBIT, Hannover, Germany

the field – CeBIT, Hannover, Germany. It is organized by the Enterprise Europe Network. Over 500 organizations from 39 different countries were registered during Future Match 2009 and more than 1,200 meetings were held. Six Bulgarian companies participated, several of which succeeded in finding new business partners thanks to the interesting technological solutions they offered and the meetings organized for them with appropriate matching companies in advance.

- As part of the Enterprise Europe Network, ARC Fund helps its clients in their search for certain technologies or innovations. Using the largest European database for advanced technologies, which contains some 8,000 technology profiles, the network connects science and business. The database is updated with new profiles every week. Anyone can contact an ARC Fund consultant in order to subscribe to and receive e-mails with the latest technology of-

fers free of charge. The website maintained by ARC Fund – www.enterprise-europe-network.bg – publishes offers and applications for new technologies and business partnership from all over Europe. Summaries with offers for business or technical cooperation are selected from the Network's database which contains a total of over 11,000 records. On the site, the offers are published in the form of short information in Bulgarian with a specific ID number. Visitors interested in a certain offer or request from abroad have to fill in a question form and send it to ARC Fund's team, who in turn contacts the authors of the offer/request and provide the relevant coordinates to the Bulgarian organization. In case of matching interest, the potential partners begin negotiations which can end with various types of cooperation agreements.

- ARC Fund offers information about specific company needs in case these



Joint seminar of Enterprise Europe Network – Bulgaria and Bulgaria's Patent Office

have questions regarding EU legislation or policies. Correct understanding of how European legislation and directives should be applied may be difficult. ARC Fund's consultants provide the relevant information, without incomprehensive terms, in respect to the application of a law and how this influences business.

- The Enterprise Europe Network-Bulgaria office at ARC Fund helps find business partners and legal advice in the cases of technology transfer or patent registration. In the context of certain directives and applicable laws in a particular country, an assessment of the effect and the success the company could have on the market can be made after analysis of the requirements, factors and conditions – this is done by the network, free of charge;
 - The network maintains close relations with EU institutions and local organizations. It acts as an intermediary
- between the EU, large multi-national companies and the local administration. For example, in a situation where there are doubts of contradiction with EU laws, the consultants may connect you with SOLVIT – the organization which corrects the incorrect application of common market laws on the part of public authorities.
 - In the case of interest of protecting a new idea, product, service or process, the Network provides consultancy in the field of intellectual property and patents. Enterprise Europe Network helps determine the maximum potential effect of organizations' ideas. It can make it easier to contact the relevant organizations and lawyers, which saves time and money. The Network works in close cooperation with specialized organizations (such as the Bulgarian Patent Office and the IPR Helpdesk of the European Commission), which help small business protect the intel-



Presentation of European programs for business funding at the Pernik Regional Administration headquarters

lectual property of its ideas and innovations so that they could bring it profit. In 2009 the Bulgarian Patent Office, in cooperation with ARC Fund and Enterprise Europe Network – Bulgaria, organized a seminar on the subject of “How not to infringe and how to act in case of infringement of our IP rights”. The agenda of the seminar covered topics such as essence of application of intellectual property rights, protection of trademarks and industrial design, or procedures in case of infringement of IP rights.

- The Network improves SME success chances in their participation in public procurement and public-private partnership and is open to explore the opportunities for clients to participate and/or cooperate, or how to prepare

the bidding set of documents and make it convincing before the public authorities. EEN has centers in countries outside the EU, including the USA, China, Russia and Turkey. EuroChile – the network’s node in Chile is a demonstration of how companies can avail themselves of the network services by having helped 340 European companies develop business in Chile. EU exports to Chile doubled between 2002 and 2008 also thanks to EuroChile and EEN.

- The Network offers business access to the European financial schemes and funding programs. It provides practical individual advice and organizes training sessions. Receiving funding can be a great challenge for entrepreneurs and small enterprises. The Network



Meeting of the Innovation Business Club at Spesima Ltd.

Box 2. EEN-Bulgaria

The network covers the entire territory of the country with 12 offices in 8 cities – Sofia, Vratsa, Rousse, Dobrich, Yambol, Stara Zagora, Plovdiv and Sandanski, and includes the following partners:



- Applied Research and Communications Fund
- Bulgarian Industrial Association
- Bulgarian Chamber of Commerce and Industry – Sofia
- Bulgarian Academy of Sciences
- Business Information and Consulting Center – Sandanski
- Business Support Center for SME – Rousse
- Chamber of Commerce and Industry – Dobrich
- Chamber of Commerce and Industry – Yambol
- Chamber of Commerce and Industry – Stara Zagora
- Chamber of Commerce and Industry – Vratsa
- Chamber of Commerce and Industry – Plovdiv
- GIS Transfer Center Foundation

and ARC Fund help in the estimation of company financial conditions, guide towards the precise source of funding, including with venture capital, towards public financial assistance and

tax credits. Investor funding can be complemented by regional, national or European authorities. The Network experts offer consultations on how to get access to public funds and grants for

R&D, innovations, investments, consultancy services, employment, training or export. The Network provides up-to-date information and consulting for its clients from the country, as well as support for SMEs in participating in tender procedures or calls for proposals under the national operational programs. Information days were organized on OP Competitiveness and OP Human Resources, as well as on the Rural Development Program. Numerous companies from the tourism branch, NGOs, local authorities and business organizations were acquainted with legislation, local requirements, European standards, new technologies, business planning and price formation, as well as the development of marketing strategy.

- The European Commission provides over EUR 50 billion for funding research under the Seventh Framework Program for scientific research, technological development and demonstrations. The experts of the Network assist the successful application of projects under this program – they inform what calls for project proposals will be announced for which type of research and technological development, help determine research needs, analyze project ideas and find reliable partners or potential consortia in other European countries, work on the preparation and coordination of project proposals, contributing to a maximum chance of success.

The Business Club on Innovation, established by ARC Fund at the Enterprise Europe Network – Bulgaria, organizes regular meetings with entrepreneurs where it acquaints them with the various European, national and bank tools for SME project funding. Special attention is paid to the funding of innovation under the EC framework programs – the Competitive-

ness and Innovation Framework Program (CIP) and the EU Seventh Framework Program for Research.

In the first 18 months of the Network's functioning in Bulgaria since the beginning of 2008 it organized or took part in the organization of 217 events with a total of 5,785 participants – representatives of SMEs, research organizations, NGOs, consulting organizations, public administration, and financial institutions. Information on open calls for proposals under the national operational programs was provided in a large portion of these events with the participation of lecturers from the Ministry of Economy, Energy and Tourism and the Bulgarian Executive Agency for Small and Medium Enterprises Promotion.

- 1,436 clients have received specialized advice related to the funding of their business, participation in European programs, or their quest for business and technology partners.
- 335 production enterprises were visited and consulted on the spot and detailed technological audits were made in 80 of these.
- The network has distributed a total of 199 Bulgarian business and technology offers and/or requests. Twenty-six Bulgarian organizations signed contracts with foreign partners – 17 for technology transfers, 4 commercial agreements and 5 partnerships on projects under the EU framework programs.
- The Network periodically publishes a newsletter, *VESTI*, in 1,000 copies, with 12 issues for the period, along with maintaining the www.enterprise-europe-network.bg internet portal, which is the leading Bulgarian portal for business information and consultation, technology transfer and innovation. It also provides information about participation in national and

European programs for funding company activity, particularly in the field of their technology development, research and the introduction of new products and technologies.

- The websites of the portal and of the partners were visited over 8.5 million times over the first 18 months of work.

VESTI newsletter

The *VESTI* newsletter is a publication of the Applied Research and Communications Fund and Enterprise Europe Network – Bulgaria. *VESTI* has been published for 13 years now, with 1,000 copies coming out every 45 days.



- It acquaints SMEs with the essence of EU policies, with the tasks and operation of Enterprise Europe Network – in Bulgaria and across the EU, initiatives and services, with the advantages of the integration of the common market, the commitments undertaken by Bulgaria, the readiness of the country, the regions, the municipalities, the companies and the public to participate in that, the standards, requirements and good practices they have to meet, as well as their responsibilities;
- Popularization of successful practices in the other EU member-states, in Bulgaria, in various sectors of the economy, different types of SMEs,

management levels and regions of the country;

- Motivation of entrepreneurs and SMEs to participate in the process of integration by awareness, participation in EU programs and projects, generation of public attitude in respect to the sense and benefits of European integration for society, social groups, individuals;
- Seeking and distinguishing the place of Bulgarian national identity in the process of integration and globalization;
- Feedback to the Bulgarian institutions in respect to the attitude and readiness of SMEs for successful integration on the common market, about their need of revisions to the legislative framework, the various regimes and the business environment;
- Collection of information from the practice of Bulgarian SMEs for generating feedback to the EC about the problems, the need of amendments to EU directives and policies, successful practices.

The contents is constantly enriched with new themes, sources of information and authors, allowing for greater outreach, increasing the Network's popularity and authority and a good presentation of its impact before the EC.

The target groups and main subscribers of *VESTI* include SME entrepreneurs, business centers and SME incubators, branch and regional business organizations, municipal authorities, state institutions, branch ministries, intermediate bodies under the operational programs and their offices in the country, representations of various European institutions in Bulgaria, representations of the other European networks in Bulgaria, representations of European banks, companies, organizations, Bulgarian and foreign media.

The website of Enterprise Europe Network – Bulgaria is designed as a web-based portal providing information about integrated business, information and consultancy services in support of innovations in Bulgaria. The portal functions in several directions, each of which is focused on the priorities set down in the Network's program:

- Up-to-date information in the field of innovation within the framework of EU policies and legislation, which also includes the aspect related to eco-innovations under the Competitiveness and Innovation Framework Program and the Seventh Framework Program for research and technological development, as well as data about requested or offered technologies – weekly update of technology offers and technology requests distributed through the Network in Europe, tracking down partners for best-match technology cooperation; access to tech-

nology offers and requests by forms for expression of interest, subscription forms for the information services offered by the Network; matters related to the protection of intellectual property rights – legislation, the latest changes in EU policy in this sphere, links to the respective organizations and information sites such as Europa (<http://europa.eu>), CORDIS (Community Research and Development Information Service) (<http://cordis.europa.eu>), EUR-Lex – access to EU legislative provisions (<http://eur-lex.europa.eu>), TED – the European public procurement journal Tenders Electronic Daily containing active notices published in the Supplement of the Official Journal of the EU (<http://ted.europa.eu>), and the EU Bookshop digital library of publications and reports (<http://bookshop.europa.eu>);

- Funding – support schemes, national and international programs; banks,

The screenshot shows the website interface for Enterprise Europe Network Bulgaria. The top navigation bar includes the logo and the text 'Ангажиментът на Европа към малките предприятия'. Below this, there's a section for 'Предстоящи събития, организирани от Enterprise Europe Network в Европа'. The main content area features a 'Във фокус' section with a featured article titled 'Шести национален конкурс за иновативно предприятие на годината 2009'. The article text describes a competition organized by the Foundation 'Applied Research and Communications', Enterprise Europe Network - Bulgaria, in partnership with the Ministry of Economy, Energy and Tourism and the National Bank of Bulgaria. The sidebar on the left contains a menu with various categories such as 'Начало', 'За нас', 'Намерете партньори', 'За идеи технологии', 'За бизнес партньорство', 'За съвместни проекти', 'Услуги на мрежата', 'Технологичното ви развитие', 'Бизнесът ви в ЕС', 'Програми за финансиране', 'Актуални конкурси', 'Събития', 'Публикации', 'Видео галерия', 'За бизнеса от А до Я', 'FAQ', 'Полезни връзки', and 'Календар'. The date 'Януари 2010' is displayed at the bottom of the sidebar. On the right side, there are additional news items and a video player.

Internet portal www.enterprise-europe-network.bg

- venture capital funds, seed funds, specific information about the sector;
- European and national legislation – information about contracting and other specific matters in respect to technology transfer or how to start up a business;
- The website integrates a module for online services such as modern communication and virtual incubation services.

The main objective is to generate capacity for virtual incubation by changing the conventional type of organization and

providing innovation and other support services to SMEs by means of easy access to internet-based electronic communication. This leads to reengineering of innovation-oriented processes towards client-oriented processes, improvement and digitalization of activities in support of innovation, achievement of a working system for offering services in support of business, boosting client awareness, as well as offering a broader spectrum of integrated high-quality services by using the best of modern communication means.

Support for enterprise and business incubators in Eastern Europe and Central Asia

ARC Fund received a second mandate (2009 – 2011) as coordinator of the Eastern European and Central Asian Incubators and Technology Park Network (ECA-bit) at the annual meeting of the network held within the framework of the **4th International Conference Advancing Innovation in Eastern Europe and Central Asia (AIECA 2009), 24 – 26 September 2009, Gabrovo, Bulgaria**. The Technical University – Gabrovo, Enterprise Europe network – Bulgaria and the Municipality of Gabrovo were co-organizers of the event. The conference was held with the support of the World Bank’s infoDev program and the iDisc global incubator initiative. The annual conference of the network is one of its most important activities as it gives the opportunity of members not only to present the results of their independent activity but also that achieved by the working groups.

The ECAbit regional conference brought together more than 70 participants from

17 countries throughout Europe and Central Asia who shared local and international experience about business incubation and innovation in the ECA region. The presence of many new members of the network, which allowed them to become integrated in the environment, was an important feature of the venue.

In the last two decades, most of the ECA countries have been undergoing a transition from planned to market economies. Fostering entrepreneurship and innovation through bringing together academia, business and government has become a main challenge for strengthening the competitiveness of the economies in the region and their market orientation. Business incubators, technology parks and technology transfer offices play a key role in the processes of commercialization of science and are crucial for development of national and regional innovation clusters.



Gabrovo Mayor Tomislav Donchev opens the conference

Need for new public policy to support academia-industry-government relationships

Currently, in most of the ECA countries specialized financial support for incubating activities or academic entrepreneurs is practically nonexistent. At the same time, in most of these countries there is no or only rudimentary necessary legislation on academic entrepreneurship – fragmented among non-coordinated sector policies (e.g. in Belarus, Bulgaria, FYR Macedonia, and the Russian Federation).

Most of the existing incubators in ECA rely primarily on external funding on a

project basis, working predominantly as not-for-profit organizations. Much less incubators rely on their own profit through the generation of start-ups with potential growth opportunity. However, since the beginning of 2000, the intensification of business incubators and technology park activities aiming at fostering the innovation process in ECA countries put emphasis on the need of new public policy to support the academia-industry-government relations.

The need for closer links between science and industry in the ECA countries and the important role business incubators and technology parks have to play

in this situation was underlined in many of the presentations at the conference. The need for national policies on business incubation should be combined with support measures for developing entrepreneurial activity among business actors and the academic community themselves.

Part of the shared experience of participants in the ECABit network:

- Regional economic development policy and value chain define the incubator mission;
- Specialized incubators are more effective for setting up local innovation networks including links to R&D;
- Incubators start from within, not outside. Donors should support but not drive the creation of incubators;
- Incubators and incubator planners have to understand positioning and value proposition – and its monitoring – within both the non-commercial and commercial context;
- Skill set of manager at founding stage differs from manager at growth stage (i.e. donor vs. client focus);
- IT incubators are good starting points in ECA for specialized incubators with ‘low-cost labs’;
- Specific public policies might serve as “incubator initiatives”, which foster the development of business clusters or particular businesses in various economic branches (e.g. regional policy for alternative tourism supporting the development of new business activities).

At the same time, it was also stated that academic entrepreneurship is still underdeveloped, and even where it exists in the region, it is often misreported or underestimated. **Business incubators and technology parks could offer support for commercialization of R&D to academics only if they seek active-**

ly commercialization opportunities. In this situation, the internationalization of the ECABit network and of incubators’ activities in general is fundamental for successful and sustainable development of the network and the incubators.

Academic entrepreneurship in Europe

One of the main problems of most of the European universities is the need to find researchers who are interested in the commercialization of their research and the incentives they receive in return. The problem is rooted into the structure of universities, which repeats the disciplinary structure of science and is directed mainly towards two major functions – teaching and research. As a result, most universities do not foster the development of entrepreneurial knowledge and skills among students and scientists. **The main challenge, faced by the European universities nowadays, is to create a link between teaching, research and entrepreneurial activity.**

Session topics:

The round table ***Incubators@Academics: Lessons learnt about the links between education, research and business and the way ahead*** was focused on factors favoring or hindering academic entrepreneurship and the role incubators can play for developing academic spin-offs.

The Municipality of Gabrovo, one of the forerunners in energy efficiency programs in Bulgaria, was the co-organizer and initiator of the ***Intelligent energy and energy efficiency*** session. The presentations made by different stakeholders demonstrated the results of various activities in this field – administrative and private buildings insulation programs, ‘intelligent’ street lights, financial and institutional support for green energy projects, etc.

The most innovative projects presented by Gabrovo enterprises, referred to a newly developed installation for cooling and heating of buildings using geothermal energy.

The presentation of TOUREG project, funded by FP7 of the European Commission, addressed the possibility for improving the competitiveness and strategic position of the tourist-oriented sectors in European regions, through the establishment of an online platform for transfer of knowledge based on technological innovation and research in the tourist sector.

The Bulgarian Association for Light Aviation (BALA) presented a model for development of alternative tourism, which is still less popular in Eastern Europe. It may be called “flight tourism” and aims at attracting tourists, even in places that

are not popular tourist destinations, by offering demonstrational and motivational flights on light aircrafts, gliders and paragliders. ARC Fund and BALA demonstrated in practice the development of “flight tourism” through the organization of an aviation show on 26 and 27 September, which was attended by over 500 people from the region.

Networking for technology transfer: AIECA 2009 offered opportunities for discussions and brokerage meetings focused on possible technology transfer projects and ideas. Members of BALA and some conference participants discussed the possibilities for developing common projects on technology transfer, incl. a project on development and implementation of new technologies in the Bulgarian manufacturers of parts and equipment for light aviation.



Технически университет – Габрово: дискусия за академичното предприемачество, опита на академичните инкубатори и проблемите на връзката наука-бизнес

With the kind support of Enterprise Europe Network – Bulgaria, ECABit members met representatives of Bulgarian companies from the regions of Gabrovo and Plovdiv and discussed the possibilities of establishing joint ventures and for export of Bulgarian products.

ECABit development

The major outcomes for ECABit network development were:

- Adoption of the final version of the constitution of ECABit, which will govern the membership and relationship within ECABit. This is an important step towards the institutionalization and sustainability of ECABit. The constitution outlined the main governance and decision-making rules and procedures and introduced membership fees for regular and associate members.
- Strategic planning, including continuation of support and development of existing working groups (Youth innovation, Eco-tourism, Investment readiness and TCNET/training) and starting up new ones (Quality/Benchmarking and Technology Transfer/Business Matching). The challenge, faced by ECABit is to ensure the sustainability of the working groups and to support the synergies between them (for instance technology transfer in the field of tourism, training and tourism, investment readiness and training, etc.). Minimum and maximum objectives and milestones were defined for all working groups, together with some horizontal activities, responsibility of the coordinating office (relationships with other networks, web-site development, newsletter and others).
- Planning of AIECA 2010 and 2011 events.

The networking opportunities before and during the forum generated ideas for the

development of a number of cooperative projects to be developed by different combinations of members. For instance, Uluchay business incubator – Azerbaijan, Civil Society Support Center – Georgia and High-Tech Incubator in Bourgas, Bulgaria, as well as partners from Ukraine will submit a project under the Black Sea Basin Joint Operational Program 2007-2013. The conference gave the opportunity of several new members of the network to get to know other members and to quickly integrate in ECABit initiatives.

As ECABit coordinator, ARC Fund maintains the network's Website content, prepares periodical newsletters, serves as a secretariat of the network Board of Trustees and supports the development partnerships in the network. With the help of the Korean National Information Society Agency and the Korean Internet Volunteers, ARC Fund offers support for network incubators and their clients by providing ICT services leading to boosting the productivity, competitiveness and innovativeness of incubator companies.

In 2009 ARC Fund also worked actively with counties in the Western Balkans. Within TransBonus, a project aimed to improve and promote closer scientific and technological cooperation opportunities between Europe and the Western Balkan Countries in the area of surface transport, the foundation published a Guide for Applicants under the EU Seventh Framework Program for Research and technological Development (FP7), prepared an analysis of research potential in the field of surface transport in Western Balkan countries, organized and held a competition for pre-project proposals under FP7 with the participation of 32 academic organizations and universities from Bulgaria, FYR Macedonia, Albania, Serbia, Bosnia and Herzegovina.

Safer Internet for Children

In 2009 ARC Fund considerably expanded the scope of its activity aimed to protect children and minors in Internet. After the Bulgarian Safer Internet Center was added to the **Bulgarian Hotline against illegal and harmful to children content, contact and conduct in Internet**, a large portion of the work was aimed towards direct and indirect informing and training of children, parents and teachers about existing and new risks for the underage in Internet, as well as the means of protection.

One of the most effective methods to focus public attention on the problem of the dangers for children in the Internet were the periodical information and media campaigns. Three campaigns were organized in 2009:

The Second national campaign “Children Safe in Internet” in conjunction with Microsoft-Bulgaria was launched on December 1, 2008 and ended on April 23, 2009 with the awarding of 10 children – winners in the “Lesson for Parents” competition for offering the ten best rules for parents to keep their children safe in Internet.

The pan-European campaign against cyber-bullying, launched on February 10. The European spot, translated into Bulgarian, was broadcast in the course of one month on 12 TV channels. Within the campaign the three mobile phone operators Mobiltel, GLOBUL and Vivacom sent SMS messages to over 2.5 million private subscribers, directing them to the website of the Safer Internet Center where they could inform themselves about the hazards for children online and the methods and means of preventing them. On the

very Safer Internet Day – February 10 – a national round table was organized at the BTA National Press Club and was widely covered by the media.

“You Choose”. A special TV spot was broadcast in the course of two months on Bulgarian National Television; billboards of the campaign were erected at 15 locations in Sofia, 10,000 posters of the campaign were pasted in the areas around schools in Sofia.

In 2009 ARC Fund continued successfully its training program at Sofia’s schools – “Real and Virtual Violence Prevention through Interactive Education in Schools”. Within this program, over 1,000 training classes were held at 20 Bulgarian schools by 50 lecturers trained in advance. The training course covered over 4,000 school students from the 5th to the 12th grade.

With a view to more effective protection of children online, a special working group was established with the participation of representatives of the National Assembly, the Interior Ministry and the mobile operators, which began work on drafting proposals for legislative amendments. An opinion was drafted about the necessary measures Bulgaria should undertake to meet more comprehensively the requirements of the European Commission’s Safer Internet Program.

ARC Fund continued to co-ordinate the activity of the Public Council on Safer Internet which encompasses 22 state institutions, business associations, private companies and NGOs involved in building a safer online environment for chil-



BG Radio hosts Simo and Bogdana and Svetla Yovova of the children site Az-de-teto announced the awards for the best drawing on the subject of "Me and my parents in Internet", standing in front of a poster of the Hotline against illegal and harmful to children content in Internet. The competition for children's drawings was announced during the preceding Safer Internet campaign.

Launch of the second Safer Internet for Children campaign



On February 4, a meeting was held at the Representation of the European Commission in Sofia at which the media were acquainted with the initiatives for marking Safer Internet Day. The three mobile operators Mobiltel, GLOBUS and Vivatel announced the first of its kind SMS campaign, at which nearly 3 million SMS messages were sent to their subscribers on February 10.

Presentation of the initiatives related to Safer Internet Day at the Representation of the European Commission in Bulgaria

From left to right: Hristo Monov, Deputy Chairman of the State Agency for Child Protection, Zinaida Zlatanova, Head of the EC Representation in Bulgaria, Ognyan Kiryakov, Managing Director of Microsoft Bulgaria, Georgi Apostolov, coordinator of the Safer Internet Center.



The poster of the “You Choose” campaign

The idea for the “You choose” campaign came from two Bulgarian students who had made their own spot, warning about the hazards of Internet. The spot was re-shot professionally with the participation of the children and the campaign was launched.



The Safer Internet Center portal

The Website of the Safer Internet Center is designed as a portal with four sub-sections: for children, teenagers, parents and teachers, in order to offer information and advice aligned with each target group.

dren and teenagers. This year the three mobile operators – Mobiltel, GLOBUL and Vivacom – joined the council, as well as Microsoft Bulgaria.

To promote awareness of the risks Internet harbors for children and the means to prevent them, three national round tables were organized over the year and meetings were held with representatives of municipalities and local administrations in four cities other than the capital.

ARC Fund participated in four international conferences and three international training courses in the framework of

the International Association of Internet Hotlines – INHOPE, and the European network of Safer Internet Centers InSafe. The Bulgarian experience was presented at these and closer co-operation was established with the Safer Internet centers in the region and in the European Union. A visit to the Polish Safer Internet Center was paid as part of the European program for exchange of experience between Safer Internet Centers.

At the invitation of Save the Children Norway and the Ministry of Security of Bosnia and Herzegovina, an ARC Fund team held a three-day training course in



The new design of the Hotline

The new site of the Hotline against illegal and harmful to children content in Internet makes it easier for visitors to submit alerts thanks to the simplified procedure and the guidance of additional information.

Sarajevo. The course was targeted at local NGOs, to enable their preparation for developing a local national Safer Internet Hotline. For the training ARC Fund was awarded a gold plaquette by the Bosnia and Herzegovina's Ministry of Security.

ARC Fund is an active participant in the activity of the National Network for Children, regularly holding training courses for the 50-plus NGOs in the field of protecting children in Internet participating in the network.

To boost awareness of the broad public and provide training for children, teenagers, parents and teachers, ARC Fund

maintains the regularly updated the web portal site of the Safer Internet Center – Kids Online- at Safenet.bg.

A Hotline against illegal and harmful to children content and conduct in Internet operates daily at web112.net, with over 3,000 alerts received and processed over the year. More than 40 of these were referred to the competent state authorities to take the respective measures and another 40 were forwarded to partner hotlines. Help and assistance was provided to more than 50 parents and teenagers in relation to problems arising through computer systems and in Internet.

Foresight Research

Since 2001 ARC Fund has been developing its institutional capacity in the field of foresight as a new tool in science and

innovation policy development. Over the years, ARC Fund contributed to a number of projects at EU level, applying foresight

methods in fields like research infrastructure, food quality and safety, participation of citizens in identifying future research priorities, environment and new energy sources.

In 2009 RAC Fund was engaged in foresight activities aimed at identifying new issues for research, which are to be in the focus of the EU Eighth Framework Program after 2014.

CIVISTI – Citizen visions on science, technology and innovation

What is the character of the problems Europe has to solve in the future? What should the future social and public characteristics of Europe be? What objectives should we set before the development of European society?

These and many other questions were discussed in workshops conducted with citizens of 7 different European states within the CIVISTI project. Aiming to support the process of identifying R&D priorities for the Eighth Framework Program of the EU (which will cover the 2014 – 2020 period), CIVISTI is based on the idea that the process of defining expedient, foresighted research programs can benefit in many respects from consulting the citizens. CIVISTI provides the citizens of seven different European countries (Denmark, Austria, Flanders/Belgium, Finland, Malta, Bulgaria and Hungary) the opportunity to define and share their vision of the future and transform it into long-term scientific, technological and innovation

themes. Our societies are changing dynamically as a consequence of globalization, new technologies, multi-cultural communities, media development, environment and climate challenges, new energy perspectives, the constant rise of welfare and consumption, among others. Every one of these circumstances requires coordinated interaction between science, technology and society, which in turn generates questions concerning the social governance of the respective specific needs and risks – both for society and for the individual. The population is a bearer of concerns and expectations for the future and, with appropriate methods, these expectations can be summarized and transformed into respective R&D themes and programs. The first round of consultations with the citizens of the seven states participating in the project was held in May-June. The results of the seven meetings were summarized by ARC Fund and the Finnish National Consumer Research Center.

SPRING: Scoping China's Environmental Research Excellence and Major Infrastructure: Foresight, Potentials, and Roadmaps

In 2009 ARC Fund took part of the preparation of the SPRING project, a supporting action under EU FP7 Environment theme, with the main objective of creating and providing a solid basis for future

EU-China collaboration in environmental research. SPRING will identify common needs and opportunities, analyze potential topics of research cooperation and initiatives to be put forward for inclusion

in the Eighth Framework Program. Activities within SPRING will develop along two main pillars:

- Mapping competences and potential of Chinese research organizations and infrastructure in the fields set down in the specific program Environment of

the Seventh Framework Program.

- Identifying potential research fields of common interest on the basis of foresight research. The foresight research methodology was developed by ARC Fund.

RIFI: Research Infrastructures – Foresight and Impact

The RIFI initiative (<http://rifi.gateway.bg/>) aims at developing an integrated methodological framework for the identification of Research Infrastructures investment opportunities and methods for Socio-Economic (S-E) impact assessment of new RIs. In the framework's development the Foresight techniques will be significantly involved. Over the last few decades, Technology Foresight has become a very powerful and widely used strategic instrument for decision-makers on the national, regional or corporate level, particularly in the field of research and innovation policies. The main reason for this is its inte-

grated participative approach that articulates the participation of a wide selection of stakeholders in the process.

The methodological framework for S-E impact assessment of new RIs will be tested and validated against several case studies of RIs in the ESFRI's Roadmap agenda <http://cordis.europa.eu/esfri/roadmap.htm>. These new pan-European RIs are planned to be located at the outskirts of the current borders of the EU and are suitable for hosting or active participation by Romanian and Bulgarian research organizations.

Work with young researchers

In 2009 ARC Fund was involved actively in activities focused on work with young people in science. In September – December ARC Fund conducted a survey of the needs of additional training and qualification of 50 doctoral students, young researchers, and post-doctoral students at the Institute of Biophysics with the Bulgarian Academy of Sciences, the Biology and Physics faculties of St. Kliment Ohridski University of Sofia, with the objective of defining an optimum scheme for training and raising their professional qualification, also taking into account the

needs of business in the field of environment, medicine and agriculture where biophysical methods are applied. In December ARC Fund held a training course dedicated to the EU Seventh Framework Program for Research and Technological Development and the EU Competitiveness and Innovation Framework Program, as well as OP Competitiveness. The objective of the training was capacity building for international project management and participation in EU programs encouraging R&D development.

The increasing authority of the Applied Research and Communications Fund as an organization with considerable expert experience in the field of innovation development and technology transfer is evidenced by the number of requests for references in connection with defense of doctoral thesis on the following subjects:

1. "Market diffusion simulation modeling" to the Specialized Scientific Council on National Economy with the Higher Attestation Commission for awarding the educational and academic degree of "doctor" to Radoslav Georgiev Yordanov, Senior Fellow at the Svishtov Academy of Economics.
2. "National innovation policy in the smaller European countries" to the

Specialized Scientific Council on Economic Theory and International Economic Relations with the Higher Attestation Commission for awarding the educational and academic degree of "doctor" to Krasimir Hristov Kerchev, Senior Fellow at the University of National and World Economy.

3. "Innovative clusters and organizational culture" to the Specialized Scientific Council on Information Sciences and Science Studies with the Higher Attestation Commission for awarding the educational and academic degree of "doctor" to Mayana Mitevska-Encheva, doctoral student at the Center of Science Studies and History of Science with the Bulgarian Academy of Sciences.

Annex: Project Portfolio 2009

Enterprise Europe Network – Bulgaria unites the activity of the previous Innovation Relay Center – Bulgaria, operating since 1997 and the eight Euro Infor Centers, established in 1999. Our partners are among the most active and best-known consultancy organizations in the individual regions, whose cooperation provides full geographical coverage of the country. As part of the pan-European network, these organizations help Bulgarian enterprises in finding diverse partnerships on the territory of the entire European market and beyond. For more information visit: www.enterprise-europe-network.bg

Research Infrastructures: Foresight and Impact (RIFI) The RIFI initiative aims at developing an integrated methodology for Research Infrastructure socio-economic impact assessment, integrating also Foresight techniques to tackle long-term issues and “shape” the future impact desired.

NET-SHARE “Network of ICT experienced organizations, sharing experience, knowledge and supporting SMEs” The NET-SHARE project intends to create, animate and manage a network of experienced ICT organizations, from several European countries, to share the experiences and knowledge on ICT initiatives and services for SMEs, gained mainly during participation in the SME domain of the former eTEN program. For more information visit: www.net-share.eu

An European Network to Support the Sustainable Surface Transport SMEs (STAR – NET TRANSPORT) The aim of the Star-Net Transport project, implemented within the EC Seventh Frame-

work Program, is to be the first step towards the development of a consolidated structure to support the participation of European SMEs in **Sustainable Surface Transport** activities (haulage, logistics, ICT applications, naval technology, car building, railway transport, economics of transport and so on) in their inclusion in project proposals under the Seventh Framework Program. For more information visit: www.starnet-transport.eu

Research Driven Cluster for Tourist Sector Competitiveness and Knowledge (TOUREG). The main objective of the project is to improve the competitiveness and strategic position of the tourism sector and in particular tourist-oriented sectors in European regions. For more information visit: <http://tourisminnovation.eu/>

International cooperation in valorization of R&D results (InterValue) The overall objective of the project is to set up a mechanism covering most of the SEE area, which allows sharing and dissemination of key technologies and help to establish supply chains between R&D institutions and the business sector. The project follows an integrated approach for strengthening the linkages among R&D organizations, industries, and public or private funding schemes through involvement of experts in evaluation and valorization of R&D results. For more information visit: <http://www.urenio.org/intervalue>

TransBonus – Improving and fostering R&D cooperation between EU and Western Balkan countries in surface transport The overall objective of this

project is to improve and promote closer Scientific and Technological (S&T) co-operation opportunities between Europe and the Western Balkan countries – Albania, Bosnia and Herzegovina, Former Yugoslav Republic of Macedonia and Serbia in the area of Surface Transport. It further seeks to establish an EU-Balkan Transport network of researchers, universities, industry and experts among these countries in order to improve and enlarge the research capacity of Western Balkan centers of competence in terms of research programs and human resources through trans-national placements of research staff and knowledge. For more information visit: www.transport.net

CIVISTI – Citizens’ visions on science, technology and innovation The aim of the project is to identify **new, emerging topics** for the EU R&D policy. This will happen by **consulting citizens in 7 European countries** (Denmark, Austria, Flanders/Belgium, Finland, Malta, Bulgaria, Hungary) uncovering European citizens’ visions of the future and transform these into relevant long-term science, technology and innovation issues. For more information visit: www.civisti.org

B-Creative – A set of tools in support of SMEs and start-up creative industry enterprises The objective of the project is to develop new tools to promote innovation in SME and start-up creative industry enterprises, aiming to boost their competitiveness. This tools will be targeted at venture capital, intellectual property and networking.

Introduction and application of new methods and approaches in training young researchers in the field of biophysics with the aim of raising their qualification and competitiveness in applied fields like agriculture, environment and medicine. The project aims

to keep and motivate promising young people working in the field of biophysics to continue their academic and business career in Bulgaria.

ERAWATCH: Base load research inventory service III. The ERAWATCH (<http://cordis.europa.eu/erawatch/>) initiative aims at systematic collection and processing, as well as providing a consistent set of information and its publication on a Web-based platform monitoring European, national and regional research structures, the participants in the studies and research policies.

ERAWATCH: European Observatory of Research-Active Universities and National Public Research Funding Agencies. Launched in 2009, the project covers the EU member-states, Associate countries and countries outside the EU. The Applied Research and Communications Fund is the official correspondent for Bulgaria and participates in the initiative to establish the first Web-based European observatory of research-active universities, which will offer a unique and developing platform, adaptable to the needs of the various stakeholders.

ERAWATCH: Contribution of policies at the regional level to the realization of the European Research Area. The project aimed to collect information about 16 EU regions and to analyze their progress in respect to their integration in the European Research Area (ERA), with a concrete focus on inter-regional researcher mobility, joint programming in the field of research policy and international cooperation

ERAWATCH Country Reports 2009: BULGARIA, Analysis of policy mixes to foster R&D investment and to contribute to the ERA. The report makes a review of the national research and development

system and presents an evaluation of the latest policy revisions. It is focused on the obstacles before investments in R&D, the opportunities and the risks generated by the Bulgarian set of applied policies, the labor market for researchers and the management of R&D infrastructure.

Research of the trends in public and private investments in ICT R&D in Romania and Bulgaria and the competitiveness of their innovation systems in the field of ICT (Public and Private Investments in ICT R&D in Bulgaria and Romania) The project aims to study the dynamics of R&D in ICT in Bulgaria and Romania.

St-up of a combined Safer Internet Center in Bulgaria (SaferInternet BG) The objective of the project is to create a safer Internet environment for children and young people through training, information and fight against illegal and harmful to children online content and conduct with the help of a Hotline for receiving alerts for such content. For more information visit: www.safenet.bg

Real and Virtual Violence: Prevention through interactive education in schools

(Real&Virtual Violence) The project aims to train students from the 5th to the 12th grade to identify the various forms of violence and aggression, both in natural life and in the Internet environment. It is implemented by capable trainers who undertake free classes at the application of 20 volunteer schools where they hold these classes on the basis of interactive games and discussion.

Institutionalization and development of the Eastern European and Central Asian Incubators and Technology Park Network (ECAbit) The project aims to foster in institutional terms the incubator network, hold annual conferences and pilot projects and the field of tourism, youth enterprise and other fields of mutual incubator interest, as well as to support international cooperation between them For more information visit: www.ecabit.org

eBulgaria2020 The project aims to support long-term planning and policy outline in the field of the development of information society in Bulgaria by profound empirical qualitative and quantitative research, statutory instrument analysis and public discussion.



PART TWO

Management



The Applied Research and Communications Fund is registered in the Central register of the Ministry of Justice as a nongovernmental organization to the public benefit. Legal not-for-profit persons to the public benefit are subject to greater control on behalf of the state and in this sense have additional obligations to submit annual reports on their activity before the Central register (by May 31 every year), as well as being subject to independent audit under the procedure of the Accountancy Act.

Organizational Structure

The organizational structure of ARC Fund consists of programs reflecting the main trends in its activity and determining its outlook. Concrete projects are implemented within the framework of each program. Since its inception in 1991 the ARC Fund has implemented over 80 projects with the support of various programs of the European Commission, the World Bank, USAID, UNDP and others.

In 2009 ARC Fund worked on the implementation of 26 projects with international and national funding. Every project was managed as a separate cost center, with specified breakdown of costs according to the requirements of the relevant funding institution. Within each project a consortium agreement is signed among the partners defining the rights, obligations and responsibilities of the sides, both in respect to the funding institution and the coordinator and the other partners.

ARC Fund's project orientation allowed the team to develop internal capacity and procedures for project management, abiding by the principle of good governance and transparency. Transparency and accountability are the guiding principles of operation of ARC Fund. The ap-

plication of these principles is expressed in:

- Annual audit.
- Individual project audit.
- Publication of annual reports in Bulgarian and English.
- In order to inform the broad public about its activity ARC Fund regularly publishes information about its projects, organized events and publications at its Website **www.arcfund.net**. The annual reports of the Fund, in Bulgarian and English, are also published there with the aim of complete transparency of its operation.
- Work with the media to promote implemented projects and achieved results.
- Fostering ARC Fund's consultancy arm – ARC Consulting.

ARC Consulting is the consultancy arm of the Applied Research and Communications Fund. The company provides consultancy services in the field of innovation and ICT in the European Union, as well as on preparation and implementation of national and international projects under the EU framework programs, the Cohesion and Structural funds.



Our team

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Georgi Apostolov, Program Coordinator
Todor Yalamov, Coordinator, IT group
Ruslan Stefanov, Coordinator, Innovation.bg group
Teodora Marinova, Senior Fellow
Marin Tintchev, Senior Fellow
Emilia Domoustchieva, Project Coordinator
Denitsa Marinova, Project Coordinator
Teodora Georgieva, Project Coordinator
Maria Alexandrova, Project Coordinator
Kalin Mutafchiev, Senior Expert
Lubomir Sirkov, Senior Expert
Elena Velkova, Senior Expert
Albena Puneva, Senior Expert
Stanislav Kushlev, Project Assistant
Alexander Gergov, Project Assistant
Prof. Marin Petrov, Senior Consultant
Prof. Milanka Slavova, Senior Consultant
Yordanka Chobanova, Senior Consultant
Ilian Iliev, Senior Consultant
Todor Galev, Senior Consultant

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Tzvetoslava Tosheva, Financial Officer
Daniela Zain, Accountant

Technical Assistants

Ognyan Apostolov
Kiril Terziiski
Emilia Dimitrova
Zdravka Ivanova



PART THREE
Financial Report