

DEFINING MOMENTS

There are 3 defining themes in this issue within the context of the Digital Agenda: eSkills, ICT Research and Development and IT Security

Where does the IT STAR region stand in these areas?

Taking into account the results of the competitions within the format of the International Olympiad in Informatics one could argue that the youngsters of our region are very skilled and talented in informatics.

Despite frugal financing for academia and the R&D establishment in most of the countries in this region, the academic community continues to have the potential to sustain first-class research in various areas of ICT. But is this research properly harnessed by the economy for high value-added activities? The challenges of ICT research and innovation in Eastern Europe will be addressed by the forthcoming IPTS-IT STAR international conference on 11 November 2011 in Budapest.

As to IT Security, our socio-economic activity is increasingly modeled and expressed over the Internet so it is no wonder that IT Security is of prime importance in all spheres. Topics in this area will be addressed by the 6th IT STAR conference scheduled for March 2012 in Bratislava.

The Autumn issue contains further information and analyses.

Take the Journey,

Plamen Nedkov

IT STAR representatives

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IOI'2012

International Conference "Talent in Informatics" during 24th Olympiad in Informatics, 22-27 September 2012, Brescia and Sirmione, Italy

Giulio Occhini



Dr. Occhini is Chief Executive Officer of AICA and Past Coordinator of IT STAR.

The recent IOI in Pattaya City, Thailand demonstrated again the strength of the national teams in Central Eastern and Southern Europe by their winning of close to 17% of all gold medals awarded at that competition. This result was achieved on the backdrop of a very strong performance of the national teams from South East Asia.

The next 24th IOI will be held in Sirmione on lake Garda and there are several circumstances with regard to this particular competition that make it special:

- Most IT STAR member societies are directly involved in the preparation of the national teams for the national, regional and international IOI competitions. In the case of Italy, AICA and the Ministry of Education are the two institutions responsible for the process of selection and participation of the national teams.
- The IOI in Italy will be organized 25 years after the General Conference of UNESCO endorsed the original proposal.
- The E-skills challenge as part of the EU's Digital Agenda is strongly emphasized at all levels and the 24th IOI gives an excellent opportunity to consider such issues as talent in informatics, working with talented youngsters, competitive environments, creativity and talent.

With this in mind and following consultations with UNES-CO, the Italian Ministry of Education and AICA, in cooperation with IT STAR, will organize a one-day conference on Talent in Informatics, to be convened in conjunction with IOI'2012.

We are pleased to report that the interest in this international event is growing and we aim to gather leading personalities from around the world to address the main topic of talent in informatics, as well as different experiences in encouraging creativity and innovativeness, working with youngsters in competitive environments, developing e-Skills, and other.

Several speakers have already been identified, among them

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Ex officio: IT STAR MS representatives (see page 1)

EDITORIAL POLICY

This Newsletter maintains a world-class standard in providing researched material on ICT and Information Society activities from the perspective of Central, Eastern and Southern Europe (CESE) within a global context. It facilitates the information and communication flow within the region and internationally by supporting a recognized platform and networking media and thus enhancing the visibility and activities of the IT STAR Association.

The stakeholders whose interests this newspaper is addressing are

- IT STAR member societies and members
- ICT professionals, practitioners and institutions across the broad range of activities related to ICTs in government, business, academia and the public sector in general
- International organizations

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Special arrangements for the production and circulation of the Newsletter could be negotiated.

The newsletter is circulated to leading CESE ICT societies and professionals, as well as to other societies and IT professionals internationally. Everyone interested in CESE developments and working in the ICT field is welcome to contribute with original material. Proposals for articles and material for the Newsletter should be sent two months before the publication date to info@starbus.org.

Academician Blagovest Sendov, who as Bulgarian delegate to the 24th General Conference of UNESCO in 1987 in Paris proposed the idea of organizing the IOI.

Further information will be published in the next NL issues.

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Results - 23rd IOI, 22-29 July 2011, Pattaya City, Thailand

For the 2nd consecutive time the winner of the 23rd IOI in Thailand was *Gennady Korotkevitch* from Belarus with the full score of 600 points.

The countries that are represented in IT STAR fared well in this competition and showed a wealth of talented youngsters in the region.

From the 27 Gold medals awarded in Pattaya City, the following individuals come from a country represented in IT STAR:

J. Milczek (Poland)	548 pts Gold
R. Hristov (Bulgaria)	533 pts Gold
I. Kicic (Croatia)	526 pts Gold
I, Katanic (Croatia)	524 pts Gold
G. Matula (Croatia)	478 pts Gold
P. Bejda (Poland)	478 pts Gold

Silver medals were won by representatives:

	J 1
Check Rep.	3 silver medals
Hungary	1
Romania	3
Bulgaria	1
Slovakia	2
Lithuania	1
Poland	1
Serbia	1

Bronze by:

Lithuania	2 bronze medals
Slovenia	1
Italy	1
Macedonia	2
Bulgaria	2
Poland	1
Hungary	1
Croatia	1
Greece	1
Slovakia	1
Serbia	1

The full list of results is posted at http://www.ioi2011.or.th/results

Jokes of the Issue

The difference between involvement and commitment is like a ham and egg breakfast. The chicken was involved, but the pig was committed!

A man is laying on the operating table, about to be operated by his son, the surgeon.

The father says, "Son, think of it this way... If anything happens to me, your mother is coming to live with you."

The teacher asked little Johnny if he knows his numbers. "Yes," he said. "My dad taught me."

"Good! Can you tell me what comes after three."

"Four," answers little Johnny."

What comes after six?" "Seven."

"Very good," says the teacher. "Your father did a good job. What comes after ten?"

"A jack," says little Johnny.

There is the story of a preacher who got up one Sunday and announced to his congregation:

"I have good news and bad news. The good news is, we have enough money to pay for our new building program. The bad news is, it's still out there in your pockets."

Some of our old favorite songs have now been re-released in a new album called "Baby Boomers Aging Nicely", such as

The Who -- "Talkin' 'Bout My Medication"

The Bee Gees -- "How Can You Mend a Broken Hip"

The Temptations -- "Papa Got a Kidney Stone"

ABBA -- "Denture Queen"

Paul Simon -- "Fifty Ways to Lose Your Liver"

Procol Harem -- "A Whiter Shade of Hair"

Herman's Hermits -- "Mrs. Brown You've Got a Lovely Walker"

The Troggs -- "Bald Thing"



THE EUROPEAN DIGITAL AGENDA - 2011 AND BEYOND

The Role of CITA in Implementing Digital Agenda 2020

Marijan Frkovic



Marijan is President of the Croatian IT Association, National ECDL Coordinator and representative to IT STAR – the IT Association of leading IT societies in Central, Eastern and Southern Europe.

Following the "Lisbon Agenda 2000", the European Union adopted the "Digital Agenda for Europe 2020" thereby urging member countries to achieve earlier defined goals in order to be competitive with the USA, Japan, South Korea and others. One could say that the Digital Agenda 2020 is the second halftime of the Lisbon Agenda, focusing on more concrete goals and activities with defined terms of implementation for member countries.

Croatia is about to join the European Union -- in June this year the negotiations for joining the EU were concluded and in July 2013 Croatia will become a full member of the European Union. The decisions defined by the Digital Agenda will become an obligation for our country.

The Croatian government abides to the Digital Agenda for many years, but the present economic crisis in the country still affects the realization of planned activities. The Central State Administrative Office for e-Croatia is responsible for the implementation of the Digital Agenda.

CITA – The Croatian IT Association is an umbrella organization of Croatian ICT experts, founded in 1975. Ever since, it has been acting to create the conditions for faster and more efficient introduction and application of ICT. The participation of the representatives of the Croatian IT Association at the Second Regional Conference of IT STAR 2002 in Slovenia, the acceptance in CEPIS and IFIP, and the organization of an IT STAR meeting in Croatia in 2003 represent the beginning of CITA's inclusion in the work of international ICT organizations. This has significantly contributed to the transfer of new IT skills in Croatia along with the exchange of experiences, and has made Croatia more prepared for the transition to the Information Society.

CITA participates in the work of IT STAR, CEPIS, IFIP, ECDL, EUCIP, and in the programs of the European Union. Apart of many significant activities at the top level of CITA, there are several organizations, experts and users of ICT active within the scope of the Association aiming to introduce and apply ICT technology, quickly and effectively, and to open opportunities of exchange of skills and experiences,

such as: Open Computer Systems and Internet, Oracle Technologies, Young Informaticians, Linux Technologies, GIS Technologies, SAP Solutions and Health.

CITA participates in many activities included in the Digital Agenda:

A Vibrant Digital Single Market

CITA members have initiated activities related to Strategies of Electronic Business and have participated in the application of e-Business in Croatia, for the period 2007 – 2010.

Together with IT STAR in November 2010, CITA organized in Zagreb the international conference on Electronic Business with the intention to provide the exchange of experience in the achieved level of e-Business and with regard to the problems of application, and equal development of e-business in the region, especially in the countries involved mostly with Croatia in foreign trade activities. Representatives of state administration, economy, universities and IT sectors from 11 countries participated at the conference. According to the opinion of the participants, the conference was evaluated as one of the most successful in the Region concerning the topic of e-Business.

In order to provide conditions for quicker development of e-Business in the Region with Information literacy being an essential presumption, in 2007 we organized the first annual regional ECDL conference, next year it was held in Slovenia, then Serbia and in Bosnia and Herzegovina.

CITA has initiated the activities under the title "e-Business for Competitive Croatia" for the purpose of accelerating the application of e-business in the country, which was supported by the President of the Republic of Croatia, Dr. Sc. Ivo Josipović, the Prime minister Mrs. Jadranka Kosor, and the Ministry of Economy, Labour and Entrepreneurship, the Croatian Employment Institute and the Central State Administration Office for e-Croatia.

The most important part of this activity is the organization of round tables in all county chambers of Croatia with the participation of the representative of the Croatian Chamber of Economy, the Croatian Employment Institute, of the administrative departments for educating system in counties and cities, of economy, media and others that we found competent to give contribution in the success of these activities. The goal of the activity is to achieve the conditions for its continuation and of existing and initiating new programs of IT Literacy and e-Business.

Interoperability and Standards

The Croatian Association of Open Systems and Internet (HrOpen), member of CITA, was founded in 1992 in order to promote and encourage the development of Open Systems and Internet in Croatia. HrOpen presents the ap-

plicability of the open code program, emphasizing the importance of developing information standards. It helps institutions and firms to transfer to the open program support, educates present and future users of open code systems and deals with the further development of the IT profession and the establishment of the Information Society.

HrOpen became in 2010 a member of the OpenForum Europe (OFE) with residence in Brussels, Belgium. They both wish to support open standards within the public and business sector in Europe. In this way, HrOpen has the possibility to participate in activities of OFE and to have access to OFE partner institutions and offices.

Trust and Security

The Association of Open Systems promotes Internet and Net services, and encourages the trust of the citizens in secure net business.

Enhancing Digital Literacy, Skills and Inclusion

CITA has the licence for certification users of personal computers, according to ECDL standards and the European Certification of Informatics Professional – EUCIP. The Croatian government accepted in 2004 ECDL as a standard in schools and state administration. More than 20,000 teachers in primary and secondary schools and more than 5000 employees in the state administration have this certificate to work on such jobs.

In 2006, there was an ECDL Forum held in Dubrovnik with the representatives of 140 countries that apply ECDL, giving full credit to CITA for a successful application of ECDL in Croatia.

CITA works successfully with the ECDL program since 2003. More than 55,000 employees, citizens, unemployed, persons with special needs and others have been working so far within the scope of some of the programs, with 47,000 of them having received certificates.

In order to encourage the application of ECDL, we entered into an agreement with the largest WEB portal of supply and demand of labour force in Croatia, «Mojposao» (My job), www.mojposao.net. When defining the employment conditions, employers prefer candidates having ECDL Start certificate. The candidates need to mention in their Curriculum Vitae whether they have ECDL (Start, Basic, Advanced or Expert). So far, more than 80% of employers have given priority to candidates with an ECDL certificate.

Together with the test centers in Croatia, we organized the action titled «With ECDL for more competitive Croatia» in order to include as many employees as possible, especially in economy and state administration offering significantly more convenient financial conditions for the education and certification of candidates, and 40% lower prices in comparison with earlier conditions.

It is well known that there is no e-Business without digi-

tal literacy, so we have initiated together with the Ministry of Economy, Labour and Entrepreneurship, the Croatian Chamber of Economy, and the National Unemployment office, a large promotion under the title «e-Business for more competitive Croatia» including into it our earlier initiated activity «ECDL from more competitive Croatia».

The aim of the program is to make the economic enterprises, especially the smaller and medium ones, the state administration, schools and the unemployed more interested in the advantages of using e-Business and ECDL.

We started with this action in all counties (20 counties) by organizing presentations and round table discussions with the topic of «e-Business and ECDL». We invite the directors of companies, especially SME-s, then the representatives of local offices of the Ministry of Economy, Labor and Entrepreneurship, county chambers, local offices of the National Unemployment office, the directors of primary and secondary schools, and others, in order to continue the initiated ECDL programs that were interrupted by the economic crisis, and to initiate new programs with the possibility of finding financial means for the education and certification of candidates.

The Croatian Association of Young Informaticians (HSIN) gather ever since its foundation in 1993 several thousands of those who are interested in using IT technologies, it organizes the Olympics of young people in Croatia. The members of the Association participate at the Olympics in the Balkans, Central Europe and the International Informatics Olympiad. In addition, it also organized the International IT Olympics in Zagreb in 2008. The members of the Association are winners of Gold medals at many Olympics. This year, the members of the Association achieved excellent results at the International Informatics Olympiad in Thailand, achieving the best results in Europe and the second place in the World [see article on p. 2, the Editor].

Apart from these activities, CITA works on many other activities. It is especially important to have many young interested people being active in CITA apart from legal persons who are interested to encourage the development and improvement of the application of ICT and information science fighting to achieve professional attitude, status and the quality of the profession, protecting the image and interests, and developing the professional ethics, supporting optimal application of ICT and information science, connecting with international organizations, organizing professional and scientific gatherings and encouraging publishing activity.



IPTS

IPTS Launches New Multi-annual Research Program – The Digital Economy

Marc Bogdanowicz



Marc is Principal Scientific Officer at the Institute for Prospective Technological Sciences (IPTS, JPC-EC) and is currently managing the "Information Society and Growth" research activities of the IS Unit.

To what extent do digital technologies substitute for analogue technologies and to what extent do they complement those? How much value-added is created by the introduction of digital technologies in (parts of) the production and distribution processes? How does it affect prices and consumption patterns, producer profits and consumer welfare? How does it affect specific industries and the overall structure of the economy? How does all this affect economic growth, job creation and competitiveness in the EU?

The transition from analogue to digital technologies produces a wide variety of economic effects: productivity increases, lower transaction costs, changes in delivery modes, enabling of new products and services, income and welfare effects (for consumers) and cost savings (for producers), changes in employment structure, re-allocation of labor Demand (including outsourcing of ICT tasks), changing modes of labor supply, strong network effects, re-allocations of property rights, etc.

In real scientific economic terms, little is known about all those effects. The economic impact of digital technology needs to be examined by means of alternative theoretical and methodological approaches and at different levels of analysis. For example, descriptive statistics on past performance are not enough and new tools are needed to estimate the current and likely future impact of ICT, to distinguish between correlation and causality or to ensure that policy measures achieve their intended goals.

A simple way of looking at the Digital Economy is to consider the market value of all digital goods and services sold in the EU. The direct and indirect value added (or contribution to GDP) generated by these goods can be estimated using input-output methods. It is relatively easy to measure – and to explain - the Digital Economy in this way, provided agreement can be reached on which (parts of) goods and services are considered as "digital". However, this approach severely underestimates the actual importance of digital technologies for the EU economy because it omits the effect of ICT use on total factor productivity, innovation in products and production processes, transaction costs and consumer welfare.

Conversely, an attempt to evaluate the share of the economy influenced by the introduction of digital technologies will overestimate the importance of the digital technologies for the EU economy. Today, production and consumption of many - if not most - industries, products and services are affected by digital technologies¹. But stating that the entire economy depends on digital technologies is not very informative either. It does not say much about the specific impact that digital technologies have on the economy.

The approach of the Digital Economy needs also to consider the existence of many hybrid technologies and processes that combine digital technologies and analogue technologies. These are cases where digital technologies greatly facilitate production and create new modes of delivery and new types of transactions, not only for purely digital services and goods, but also for non-electronic services and for material goods.

The recently launched research program focuses on a number of tools, both on the supply and the demand side of the Digital Economy.

In recent years, research on ICT issues has very much emphasized the supply side. The burgeoning literature on ICT growth accounting is probably the best example. This line of research is still far from being exhausted and has many policy-relevant applications. Questions on the relative economic importance of ICT and digital technology in the production of goods & services in general keep popping up and need a more definitive answer.

Research on the demand side effects is rather sparse so far. Some work on consumer demand for Internet and broadband connections has been around for a while. But the economic effect of the transition from analogue to digital information technologies on consumer welfare remains a largely under-researched subject. IPTS intends to re-balance that equation and put equal emphasis on the demand side effects of the digital economy. More specifically, the impact of technological change and regulatory measures on overall welfare as well as on the allocation of surplus between consumers, content producers and infrastructure providers, will be focal themes. Furthermore, this program intends to make inroads into the economics of information property rights, both on the producer side (copyrights and other forms of intellectual property rights) and on the consumer side (privacy rights and data security).

Similarly, research has largely relied until now on traditional source of statistical data such as national account and household surveys. While this program will continue to rely on these sources, it intends to make use of other data generated directly by digital activities for instance the use of Internet traffic data and data collected by content provid-

¹ Taking the electricity sector as an analogy, we can say that every industry and service depends on electricity to produce and deliver goods to consumers. Electricity has become a very pervasive complementary input into virtually every activity. Most of the economy would come to a stand-still without electricity. However, that does not necessarily make the entire economy an "Electric Economy". The same applies to digital technologies.

ers. Challenges regarding availability, access and validity of quantitative data at European level will have to be addressed.

All of the above indicates the need for a research agenda dedicated to a conceptual and methodological clarification of the Digital Economy. Such research objectives seem to be embraced today also by the OECD, with its work on the Internet Economy and the National Science Foundation in the US. Likewise, but with different objectives, the OECD and EUROSTAT have started running European research networks (respectively ICTNET and ESSNET) that could come in support. IPTS is already directly participating in these initiatives.

The current Digital Economy research agenda at IPTS will call for:

- (a) A conceptual and methodological clarification of the Digital Economy that integrates a perspective going beyond GDP-related measurements. This will be developed in close collaboration with the OECD.
- (b) The measurement of the Digital Economy, i.e. to analyze and quantify the economic impacts of the transition from analogue to digital technology on the EU economy and how those impacts can contribute to enhancing the economic potential for a way out of the crisis and for further sustainable growth and job creation. The objectives target results that go beyond GDP and supply-side aspects, extending the research domain to producer and consumer welfare as well as opening up to additional methods and perspectives such as Life Cycle Analysis.
- (c) The examination of the economic cost of the remaining regulatory barriers in the EU market for e-commerce, both for consumers and producers, as to examine how regulatory frameworks and measures could contribute to enhancing the economic potential of the Single Market.

Generally speaking, this research program aims to understand current and future economic dynamics (at macro, industry, company and consumer behavior level) induced by the DE, assess the macroeconomic impact of proposed policies under several pillars of the DAE, and in particular the DSM, and gain economic insights in future strategic policy choices.

During the remaining months of 2011, IPTS will open a web page to collect scientific literature and make public its first findings. The research program is planned for the period 2012-2015. More will be made available at: http://is.jrc.ec.europa.eu/pages/ISG/isT.html.

Also for those interested in research in the Digital Economy, new temporary positions for Post-doctoral researchers (fellowships) will be posted after the 10th of September on the following IPTS site: http://ipts.jrc.ec.europa.eu/jobs/.

Results of the Technological Audit Studies regarding the specific ICT RTD Capabilities in the EU12 and selected Associated Countries to the FP7

Stephan Pascall



Stephan holds a PhD in pattern recognition technologies and has a background in telecommunications and space industries. In the EC, he was involved with the eTEN Programme and was Adviser to the Director for Directorate C, "Lisbon Strategy and Policies for the Information Society"

with responsibilities related to international cooperation, integration of New Member States and regional aspects for RTD in the area of the EC's 7th Framework Programme ICT-Theme. He is currently associated with Europlan UK Ltd, a consultancy specialising in IS matters.

1. INTRODUCTION

The development of European research excellence depends on the full integration of all technological resources within the EU into a common European Research Area (ERA). To achieve a strong ERA, all available resources in the European Union Member States (EU27) need to be efficiently and properly utilised. Unfortunately, the capabilities of the newer Member States (EU12) and the Associated Countries (ACs) to FP7 (particularly in the Western Balkans) are not fully utilised. In general, the participation of these States in the FP7 – ICT Theme does not reflect the available or potential RTD capacities that exist in these States.

The EU12 are rebuilding their RTD capabilities after their turbulent transition to market economies in the 90s. Considered collectively, there is enough scientific potential in these Counties to cover most areas of the ICT-Theme. This hidden potential needs to be identified and released for the construction of a strong, all-inclusive and geographically balanced ERA.

In the context of the above, the European Commission DG INFSO has completed 17 Technological Audit Studies (Audits) on the ICT research capabilities of each of the EU12 countries and selected ACs (BiH, Albania, Montenegro, Serbia and Turkey). The Audits aim to identify the respective ICT RTD policy and legal environments, centres of excellence per challenge/objective of the ICT Theme, any existing barriers to participation in the FP7 ICT-Theme as well as actions that should be taken at a national and EU level to increase their participation.

The output of each Audit consists of 9 Deliverables. The last two (8 and 9) are the consolidated study output and are aimed at the specialist and non-specialist readers respectively. Deliverable 9 is a public document and copies are available from DG INFSO.

The aim of this paper is to determine (a) in which Objectives of the ICT Theme the EU12 and selected Associated Countries have high expertise (b) the most common high expertise Objectives for the countries under consideration.

The analysis is based on the results of Calls 1, 2 and 3 of the FP7-ICT Theme. The data used in the analysis are in the public domain and have resulted from the individual Audit Studies appropriately consolidated for the purpose

2.0 THE TECHNOLOGICAL COMPETENCE/ PROGRAMME SHARE MATRIX

To facilitate the analysis and achieve the stated objectives, a diagram consisting of four quadrants was created. In this diagram the Objectives of the FP7-ICT Theme, for which the Countries involved submit proposals are mapped. This is termed a Technological Competence/Programme Share Matrix (Matrix) for particular objectives. In **Table 1** the Matrix produced for Poland is shown as an example. In the Matrix the vertical axis indicates two levels of technological competence namely high (upper part) and low (bottom part). The horizontal axis indicates the ICT Theme participation level. And it is divided into two parts, namely high (right hand part) and low (left hand part).

Table 1 – Technological Competence/Programme Share Matrix for Poland

4	` High technological	High technological
HIGH	competence – low	competence – high
112311		
echnological Competence	programme share: 1.5 Networked Media 3D Internet 2.1 Cognitive Systems and Robotics 2.2 Language-based interaction 3.8 Organic Photonics and other Disruptive Photonics Technologies 3.9 Microsystems and Smart Miniaturised Systems 4.1 Digital libraries and digital preservation 4.3 Intelligent information management 5.3 Virtual Physiological Human 6.1 ICT for Safety and Energy Efficiency in Mobility 7.2 Accessible and assistive ICT 7.3 ICT for Governance and Policy Modelling 8.2 Quantum Information Foundations and Technologies 8.1 Concurrent Tera-Device Computing 8.5 Self-Awareness in Autonomic Systems 8.8 Brain-Inspired ICT	programme share: 1.1 The Network of the Future 3.2 Design of Semiconductor Components and Electronic-based Miniaturised Systems 1.2 Internet of services, software & virtualization 3.5 Engineering of Networked Monitoring and Control Systems 3.7 Photonics 1.4 Trustworthy ICT 1.6 Future Internet experimental facility 6.3 ICT for Energy Efficiency 8.4 Human-Computer Confluence
LOW	Low technological competence — low programme share: 3.4 Embedded Systems Design 4.2 Technology-enhanced learning 5.1 Personal Health Systems 5.2 ICT for Patient Safety 7.1 ICT and Ageing 8.3 Bio-chemistry-based Information Technology 8.6 Towards Zero-Power ICT 8.7 Molecular-Scale Devices and Systems	Low technological competence — high programme share: -

A Country may have a solid level of expertise and good potential in a particular Objective, but for some reason its participation in the FP7-ICT is low. In this case it is said that the Country concerned has a **high technological competence and low programme share** in FP7-ICT participation for the particular Objective. The Objectives corresponding to this situation are listed in the first quadrant of the Matrix. A Country may also have a high level of expertise in a given Objective and correspondingly have high level of participation in the FP7-ICT. This is illustrated in the second quadrant of the Matrix entitled **high technological competence-high programme share**. The third quadrant illustrates a situation where a Country has a low competence in a particular objective and also low participation share (**low technological competence-low programme share**). The last quadrant shows a very rare situation when a Country has a low level of expertise in a given Objective, yet its share in the FP7 participation is high (**low technological competence-high programme share**). The only Country that has more than two items in this quadrant is Bulgaria. The most interesting situation arises when a Country has a high competence in a given Objective but low programme share. This signals that such a country can improve the participation in the programme by implementing certain assistive measures to break identified barriers to better participation.

3.0 METHODOLOGY

The Audit Contractors were given the opportunity to apply one of two methodologies for the creation of the Matrix. These two methodologies were defined after extensive theoretical investigations and consultations with the Audit Contractors. For reasons of brevity the methodologies used are not described in this paper but can be provided on request by the author.

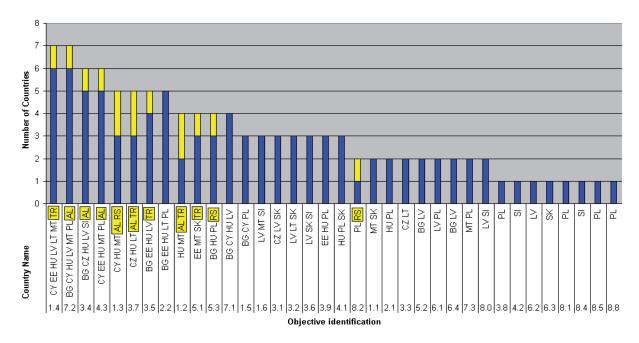
In order to define the correlation between the two methodologies, analysis on the Bulgarian data was carried out using both methodologies. The results show that the level of a correlation between the two methodologies is 92%. It

was thus concluded that the results of both methods can be combined and conclusions drawn without unduly compromising the final result.

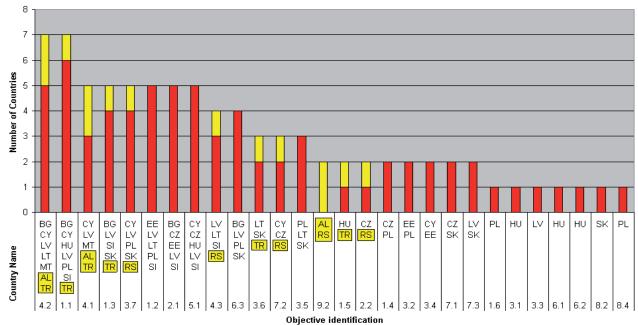
4.0 FINDINGS

The Matrices of the countries studied were consolidated and a frequency histogram for each matrix quadrant was drawn as shown below. These histograms show the Objectives shared by the countries concerned for the four quadrants of the consolidated Matrix. The columns of the histogram include both the EU12 and ACs (Albania, Turkey and Serbia-coloured yellow).

Common Objectives in the EU12 and AC (high competence-low share)



Common Objectives in the EU12 and AC (high competence-high share)



5.0 CONCLUSIONS

By studying the two top quadrants of the Matrix as presented in the respective frequency histograms shown above the following conclusions can be drawn:

5.1 'High competence - low share' quadrant

A-Seven countries have expertise in the Objectives:

1.4 – 'Trustworthy ICT'

7.2 - 'Accessible and Assistive ICT'.

B-Six Countries have expertise in the Objectives:

3.4 – 'Embedded systems'

4.3 - 'Intelligent information management'.

C- Five Countries have expertise in the Objectives:

1.3 – 'Internet of things and enterprise environments',

3.7 - 'Photonics',

3.5 – 'Engineering of network monitoring and control systems'

2.2 – 'Language based interaction'.

D- Four Countries have expertise in the Objectives:

1.2 - 'Internet of services, software & virtualization',

5.1 – 'Personal health systems',

5.3 – 'Virtual physiological human' and 7.1 – 'ICT and Ageing'.

In conclusion there are 11 Objectives in which a minimum of four EU12 and ACs have particular expertise. Measures can be taken both at European and national levels to facilitate greater participation of the countries concerned in the relevant areas of the ICT Theme.

5.2 'High competence-high share' quadrant

This quadrant of the matrix shows that a number of EU12 and ACs have expertise in a range of Objectives and this expertise is used to participate in the ICT Theme. These Objectives include the following:

1.1- 'Network of the Future'

4.2 - 'Technology-Enhanced Learning'.

4.3 – 'Intelligent information management'

6.3 – 'ICT for Energy Efficiency') common in.

3.5 - 'Engineering of network monitoring and control systems'

3.6 – 'Computing Systems'

7.2 – 'Accessible and Assistive ICT'

The ACs seem to be particularly successful in Objective 9.2 – 'Supplements to Support International Cooperation between Ongoing Projects'. This could be misleading as this is the result of particular actions contained in the ICT Theme to facilitate the technological integration of the Western Balkans.

From the above analysis it is concluded that the EU12 and ACs have enough capacity in a range of areas of the ICT Theme to contribute effectively in the creation of a strong all-inclusive and geographically balanced ERA.

Member Society News

Hungary

IFIP TC2 CEE-SET'2011 Conference organized by the John von Neumann Computer Society in Debrecen, Hungary - http://cee-set.njszt.hu/

Miklós Biró



Miklós served as General Chair of IFIP TC2 CEE-SET'2011. He is Associate Professor and Project Director at Dennis Gabor College in Budapest.

IFIP TC2 CEE-SET (Central and Eastern European Conference on Software Engineering Techniques) is the highly prestigious series of software engineering conferences attracting researchers and practitioners from all over the world, serving as a fertilizing forum for exchanging ideas and experiences concerning software engineering techniques and processes.

CEE-SET'2011 was convened on 25-26 August in Debrecen as the continuation of previous successful conferences held in Poland and the Czech Republic.

Extending its tradition, IFIP TC2 CEE-SET'2011 succeeded in attracting speakers from 10 countries: Bulgaria, Canada, Czech Republic, Germany, Hungary, Italy, Poland, Romania, Serbia, Slovakia.

As a general rule, every paper was assigned for review by 3 Programme Committee members whose conscientious refereeing, the dedication of all participants, as well as the three distinguished keynote speakers all contributed to the high quality of the conference whose programme included the following presentations:

- Péter Ilosvai, IT Services Hungary (Keynote) Enabler of connected life and work
- Ladislav Samuelis On Principles of Software Engineering - The Role of Inductive Inference
- Noureddine Kerzazi, Mathieu Lavallee, Pierre N Robillard - A Knowledge-based Perspective for Software Process Modeling
- Ovidiu Gherman, Stefan Gheorghe Pentiuc Middleware Architecture for the Interconnection of Distributed and Parallel Systems
 - Dessislava Petrova-Antonova, Sylvia Ilieva, Ilina

Manova, Denitsa Manova - Towards Automation Testing of Web Service Compositions

- Anna Medve Standards-based Framework for Functionally Integrated Engineering of Information Systems Security
- Richard Messnarz, ISCN, EuroSPI, ECQA (Keynote) -Principles and concepts of integrated design - software as part of a bigger world
- Zdenek Melis, Jaroslav Zacek, Frantisek Hunka Comparison of MDA and DSM Technologies for the REA Ontology Model Creation
- Katalin Szenes Supporting Applications Development and Operation Using IT Security and Audit Measures
- Kalina Dimitrova, Aleksandar Dimov and Dessislava Petrova-Antonova - Reusable components in databasecentric software systems
- Zoran Budimac, Zoran Putnik, Mirjana Ivanović, Klaus Bothe - A View on a Successful International Educational Project in Software Engineering
- Bogumila Hnatkowska Software Engineering Team Project – Lessons Learned
- Frank Padberg, David Weiss A Simulation-based Approach to the Study of Optimal Scheduling Policies for Software Projects
- András Gábor, National Instruments Hungary (Keynote) Identity Management Challenges
- Simona Jeners, Horst Lichter, Carlos Augusto Gomez Rosenkranz - An Efficient Adoption and Assessment of Multiple Reference Models
- Dániel Horpácsi, Judit Kőszegi Static analysis of function calls in Erlang: Refining the static function call graph with dynamic call information by using data-flow analysis
- Jaroslav Zacek, Frantisek Hunka Reusable objectoriented model
- Péter Balázs Polgár Using the Cognitive Walkthrough Method in Software Process Improvement
- Andrzej Zalewski, Szymon Kijas From Principles to Details: Integrated Framework for Architecture Modelling of Large Scale Software Systems
- Lajos Kollár, Attila Adamkó Approaches of Incorporating Business Process Models into Web Engineering
- Balázs Hadházi-Borsos How to Create Ergonomic Software

The Conference was opened by István Alföldi, CEO of the John von Neumann Computer Society and Co-chair of IFIP TC2 CEE-SET'2011. Jaroslav Zendulka, Dean of the Faculty of Information Technology at Brno University of Technology and CEE-SET Steering Committee member gave a welcoming address at the Conference Reception. Jerzy Nawrocki, IFIP TC2 Vice-Chair and IFIP TC2 CEE-SET PC Co-chair, Dean of the Faculty of Informatics at Poznan University of Technology gave a welcoming presentation about IFIP: The Past and the Future at the Conference Dinner jointly organized with the Hungarian Conference on Informatics in Higher Education 2011.

As a one-day pre-conference session, the John von Neumann Computer Society offered the exclusive tutorial entitled Hands-on SPICE, which welcomed 15 participants. SPICE is the nickname (Software Process Improvement and Capability dEtermination) of the ISO/IEC 15504 international standard which provides a model for the assessment and improvement of processes especially in the software development domain where its application is becoming a requirement for a company to sustain its market position and for being considered as a reliable business partner. The tutorial was presented by the chair of the Software Quality Management Division of the John von Neumann Computer Society who has a leading role in several worldwide software process improvement initiatives and conferences (e.g. EuroSPI, SPI Manifesto, ECQA Certified PI Manager job role). The agenda of the tutorial included the following topics:

- Historical Perspective on the State of Software Process Improvement [*] - Process and Life Cycle Models - Capability and Maturity Models - Process Dimension - Capability Dimension - Assessment and Rating.

[*] Biró, M.: The Software Process Improvement Hype Cycle. Invited contribution to the Monograph: Experiences and Advances in Software Quality (Guest editors: D.Dalcher, L. Fernández-Sanz) CEPIS UPGRADE Vol. X (5) (2009) pp. 14-20. http://www.cepis.org/files/cepisupgrade/issue%20 V-2009-fullissue.pdf accessed on 24/06/2011.

CEE-SET'2012, the next conference in the series, is planned to be organized in Prague.

Italy

AICA celebrates its 50th Anniversary

AICA is Italy's most prominent Association in the Information Technology field. Founded in February 1961, AICA celebrates this year its 50th birthday. The most memorable events of these fifty years are gathered by AICA in a booklet, which is posted at http://212.45.143.24/Monografia-50anni-AICA.pdf

Computer Ignorance in Italian Local Governments costs over 205 Million EUR

A research project carried out jointly by SDA Bocconi University and AICA shows that specific ICT training for employees would improve productivity by +12% and would allow 78% of the citizens to use web services.

Information and presentations are available at http://www.aicanet.it/eventicontestuali/2011/subscribableevent.2011-04-29.1859456169

"EU Contest for young scientists": AICA awards the best ICT project

AICA jointly with FAST (the Italian Federation of Scientific and Technical Associations) promotes Italian students participation in the "European Commission Contest for young scientists".

Every year a prize is awarded to the best ICT project. This year, the award is given to "GAVIN 1.0: il drone giocatore di morra" – a project based on a robot playing "morra", a traditional Sardinian hand game. 3 students from a secondary school in Calgary developed this game.

Lithuania

"Computer Days", the biannual computer conference of the Lithuanian Computer Society will be held on 22 - 24 September 2011 in Kleipeda. Please check www.liks.lt/kodi_en for the details.

- training, awareness, curricula issues, key research topics and other]
- Miscellaneous aspects of Information Security [best practices, standardization, major projects, EU information security directives, electronic signatures and other].

Expressions of interest to participate with a contribution to the program of this conference should be addressed to:

Plamen Nedkov nedkov@utanet.at Igor Privara igor.privara@gmail.com

The exact date venue and conference and a draft program will be published in the next issue of this newsletter.

7th IT STAR WS eBusiness II

Following the successful organization of the first IT STAR conference on eBusiness on 12 November 2011 in Zagreb, Croatia (*see Vol. 8, no.4, Winter 2010/11 of the NL*) IT STAR and AICA will organize the second edition of this conference during autumn '2012 in Italy. The date and venue will be announced in the next NL issue.

Talent in Informatics

September 2012 [Please refer to p. 2]

Forthcoming IT STAR Related Events

IPTS – IT STAR Conference on R & D in ICT 11 November 2011 [Please refer to p. 14]

6th IT STAR WS on IT Security

IT STAR's 6th WS on IT Security will be hosted by the Slovak Society for Computer Science (SSCS) in Bratislava, in March 2012.

Members of the Program and Organizing Committee (*Messrs Nedkov, Occhini, Privara and Rovan*) met on 25 July to review the arrangements.

This conference will be a one-day event and the topics to be addressed include the following areas:

- Strategies of Information Security [incl. information security problems, cybercrime, national strategies, information protection, legislation, international cooperation and other]
- Research and Education in Information Security [incl. knowledge and skills, security experts and their



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MultiCulti

Laurels for Lovran

Dorothy Hayden



My article in the Summer NL issue was intended to take you to wonderful Piran on the northwest side of the Istrian peninsula, which is shared by Croatia, Slovenia and Italy. Istria is lovely and a great place for holidays as a true multiculti destination, so I thought another visit to the region, this time to Lovran, on the northeast side of the peninsula on the Kvarner Gulf, would be appreciated.

There are two ways to get there from Piran — either along the coastline traveling through picturesque fishing villages and historic towns such as Porec, Vrsar, Rovinj, Pula and others, and passing along such beautiful landmarks as the Limski fjord and the Briuni archipelago and then heading north (my recommended choice), or quickly getting there via the newly constructed highway across northern Istria.



Lovran is a small town of some 3,500 inhabitants closely located to Opatija, a modern tourist resort (and the venue of IT STAR's business meeting in 2003), and to Rijeka, the tourist center and harbor city and the seat of the Primorskogoranska County. Lovran is one of the oldest settlements on the eastern Istrian coastline - in the Middle Ages it was an important urban and shipbuilding center but then lost its significance as such to the rapidly developing Trieste, Pula and Rijeka. It gained a new flare around the mid 19th

century as a fashionable Austro-Hungarian resort and this triggered a long tradition in tourism, which currently is the gold mine of the regional economy.



The region's rich historic and cultural ancestry is a strong attraction to visitors. I was impressed by the beautiful *fin de siècle* villas and other buildings in Lovran.



One of the nicest attractions in my mind is the Lungomare, a 12-kilometer pedestrian alley along the sea joining Lovran, Ika, Ičići, Opatija and Volosko. The Lungomare's construction was completed in 1889 and offers a great way to enjoy stunning views over the bay and to savor a relaxing experience.



If you enjoy frutti di mare you are in the right place and one pleasant restaurant on the Lovran waterfront that I visited and enjoyed is Najade. There are also great places for seafood in Mošćenička Draga, close to the south of Lovran and the exit point for a nice hike up 745 steps to the little village of Mošćenice with great views across the sea.



CALL & INVITATION FOR PARTICIPATION



IPTS – IT STAR International Conference

ICT Research and Innovation Challenges in Eastern European Member States (EEMS)

www.starbus.org/ict_r&dconf11

We are pleased to announce that this joint IPTS-IT STAR conference will be held on Friday, 11 November 2011 at the Danubius Hotel Flamenco – www.danubiushotels.com/flamenco in Budapest, Hungary.

Co-organizer: Computer and Automation Research Institute, Hungarian Academy of Sciences

Tentative Program

11 November

IPTS, IT STAR and Hungarian welcome addresses 09.30 – 10.00 Juraj Stancik , Institute for Prospective Technological Studies (IPTS) – JRC,	EC
ICT Research and Innovation Trends and Challenges in EEMS as seen in th	
Report on ICT R&D in the EU and other IPTS and EC Research	0 2011
10.00 – 11.15 Bruno Lamborghini , Chairman of the Board, European IT Observatory	
EITO Overview of ICT activities and R&D Challenges in EEMS	
Cene Bavec, Former Slovenian State Secretary for Technology and IBM Ex	ecutive
Governance issues and incentives for ICT Research and Innovation	
Speaker from Industry (Either from a major national enterprise or a multinational with operations in I	EEMC)
Bridging the Gap between Industry and Academia: R & D Challenges	EEIVIS)
11.15 – 11.30 Coffee	
11.30 – 13.00 Panel 1 ICT R&D: The Multi-Stakeholder Partnership in Action	
4 Panelists	
Diana Šimić , University of Zagreb, Chairperson of the eSEE initiative group	
Challenges for SEE countries in the ICT R&D field	
Saulius Maskeliūnas, President of LIKS Lithuania The Baltic R&D in ICT Scene	
13.00 – 14.00 Buffet Lunch	
14.00 – 15.40 Country Perspectives of ICT R&D Challenges in EEMS (including research p	oriorities
and products, R&D financing, participation in EC programs)	
Peter Inzelt, Director of MTA SZTAKI, Hungarian Academy of Sciences	
Kiril Boyanov, ICT Institute & Stefan Dodunekov, Director of Institute of	
Mathematics and Informatics, Bulgarian Academy of Sciences	
Branislav Rovan, Professor at Comenius University in Bratislava Marek Holynski, Director of Computer Science Institute, Warsaw	
15.40 – 16.00 Coffee Break	
16.00 – 17.30 Panel 2 Country Perspectives - ICT R&D Competitiveness and Innovative Pr	roducts
4 Panelists	
17.30 – 18.00 Wrap-up and Closing	

Slots in the program and especially in the 2 conference panels will be finalized by the end of September. Expressions of interest for participation and contributions to the program are welcome and should be sent to Plamen Nedkov@utanet.at by 30 September.

Updated conference information will be posted on the conference website and circulated to all interested parties.

SNAPSHOT



REGIONAL ICT ASSOCIATION IN CENTRAL, EASTERN & SOUTHERN EUROPE



Type of organization

Regional non-governmental and non-profit professional association in the ICT field.

Date and place of establishment

18 April 2001, Portoroz, Slovenia

Membership

Countries represented (see next page for societies), year of accession, representatives

- Austria (2001) V. Risak, G. Kotsis, E. Mühlvenzl
- Bulgaria (2003) K. Boyanov
- Croatia (2002) M. Frkovic, M. Glasenhart
- Cyprus (2009) P. Masouras
- Czech Republic (2001) O. Stepankova, J. Stuller
- Greece (2003) S. Katsikas
- Hungary (2001) B. Domolki
- Italy (2001) G. Occhini
- Lithuania (2003) E. Telesius
- Macedonia (2003) P. Indovski
- Poland (2007) M. Holynski
- Romania (2003) V. Baltac
- Serbia (2003) G. Dukic
- Slovakia (2001) I. Privara, B. Rovan
- Slovenia (2001) N. Schlamberger

Statutes

IT STAR Charter http://www.starbus.org/download/charter.pdf adopted on 23 October 2004 by the IT STAR Business Meeting in Prague, the Czech Republic.

Mission

"To be the leading regional information and communi-cation technology organization in Central, Eastern and Southern Europe which promotes, assists and increases the activities of its members and encourages and pro-motes regional and international cooperation for the benefit of its constituency, the region and the interna-tional ICT community."

Governance

IT STAR is governed according to the letter of its Charter by the Business Meeting of MS representatives:

2011 Portoroz, Slovenia (April)
2010 Zagreb, Croatia (November)
2009 Rome, Italy (November)

2008 Godollo, Hungary (November)2007 Genzano di Roma, Italy (May)

Timisoara, **Romania** (October)

2006 Ljubljana, Slovenia (May) Bratislava, Slovakia (November)

2005 Herceg Novi, Serbia & Montenegro (June) Vienna, Austria (November)

2004 Chioggia, Italy (May)

Prague, the Czech Republic (October)

2003 Opatija, Croatia (June) Budapest, Hungary (October)

2002 Portoroz, Slovenia (April)

Bratislava, **Slovakia** (November)

2001 Portoroz, Slovenia (April) Como, Italy (September)

Coordinators

 2010 –
 Igor Privara

 2006 – 2010
 Giulio Occhini

 2003 – 2006
 Niko Schlamberger

 2001 – 2003
 Plamen Nedkov

(currently Chief Executive)

Major Activities

- 5th IT STAR WS and publication on Electronic Business - http://starbus.org/ws5/ws5.htm
- 4th IT STAR WS and publication on Skills Education and Certification - http://starbus.org/ws4/ws4.htm
- 3rd IT STAR WS and publication on National Information Society Experiences NISE 08 http://www.starbus.org/ws3/ws3.htm
- 2nd IT STAR WS and publication on Universities and the ICT Industry
- http://www.starbus.org/r_d_ws2/r_d_ws2.htm
- 1st IT STAR WS and publication on R&D in ICT http://www.starbus.org/r d ws1/r d ws1.htm
- IT Professional Pool Database (in progress)
- Workshop and publication on National Experiences related to the EU's 5th and 6th FP http://www.starbus.org/download/supplement.pdf
- Joint IT STAR FISTERA Workshop on ICT and the Eastern European Dimension http://fistera.jrc.es/ pages/roadshows/prague%2004/FINAL%20REPOR-Trevised.pdf
- Support to Member Society initiatives and events

Periodicals

The IT STAR Newsletter (nl.starbus.org) published quarterly.

Web-site

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