Newsletter - *Calibrated for Creative Communications*

Vol. 6, no. 1, Spring 2008

From the Editor

Happy Spring

In early March Bulgarians greet each other with the words "Happy baba Marta", as March is often referred to, and exchange red and white woven strips (or small woolen dolls named Pizho and Penda) as a token of welcome to the incoming Spring. These decorations, worn on the lapels or around the wrist, are "Martenitsi", an authentic Bulgarian tradition, also customary in parts of Romania, symbolizing conception, fertility, spring, joy, health and purity.

With this regional cultural overture we unveil the March issue which covers two main topics:

- **Computer History**, with unique recollections on the series of world computer congresses and computer "firsts"
- **IT-Skills**, with articles from ECDL-F, AICA-EUCIP and the E-Skills ILB

There is more with respect to the ICT scene, regionally and internationally, and we are pleased to deliver.

Take the Journey,

Plamen Nedkov

IT STAR representatives:

Austria/OCG - V. Risak, **Bulgaria**/BAS - K. Boyanov, **Croatia**/CITS - M. Frkovic, **Czech Rep.**/CSKI - J. Stuller, **Greece**/GCS - S. Katsikas, **Hungary**/NJSZT – B. Domolki, **Italy**/AICA – G. Occhini, **Lithuania**/LIKS - E. Telešius, **Macedonia**/MASIT - P. Indovski, **Poland**/PIPS – M. Holynski, **Romania**/ATIC – V. Baltac, **Serbia**/JISA – D. Dukic, **Slovakia**/SSCS- I. Privara, **Slovenia**/SSI - N. Schlamberger

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Advisory Board

New Member

Irena Lasiecka graduated with a MSc. in Applied Mathematics and received her Ph.D. in Applied Mathematics from the University of Warsaw, Poland, in 1975. She then was at the Polish Academy of Sciences - Control Theory Institute, University of California, Los Angeles, CA - Systems Science Department, and the University of Florida, Gainesville, FL - Mathematics Department. She is Professor at the University of Virginia, Charlottesville, VA since 1987

In 2004 Irena was chosen as IEEE Fellow with the citation "for contribution to boundary control systems", and since 2006 she is associate editor of the International Journal of Computer Sciences and Mathematics. In IFIP, she has served in various positions including as chairperson of its Technical Committee on Modelling and Optimization.

Prof. Lasiecka is currently on the International Advisory Board of the Polish Academy of Sciences. ■

Letters to the Editor

Extracts from letters to the Editor with respect to the last issue. Your comments and suggestions are welcome - the coordinates are provided on page 1

"I note the new additions to the Newsletter Advisory Board, and that you have included some IFIP veterans from other countries, as well as the countries covered by IT Star. All of these men should be helpful on your Board…My question to you is - Where in IT Star, and its Advisory Board, are women involved? …The IT world in other geographic areas has opened up to include women in its management/ policy ranks, as well as at the middle and lower end of ICT industry jobs. So why has this not happened in the IT Star countries? …The look of the IT Star newsletter gets better and better - compliments are in order for the Editor!"

Judy Hammond, Past IFIP TC 13 Chair, AUSTRALIA

"I'm sending the paper of G. Grigas on the First Lithuanian Computer. Dr. Grigas is a big supporter of using Lithuanian characters (with diacritics) in all papers, documents and journals, he even wrote saying I will not prepare the paper because the IT STAR Newsletter does not use Lithuanian letters with diacritic marks."

Saulius Maskeliunas, Institute of Mathematics and Informatics, LITHUANIA

ADVISORY BOARD

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

EDITORIAL POLICY

This Newsletter aims to maintain a world-class standard in providing timely, accurate and interesting material on ICT and Information Society activities from the perspectives of Central, Eastern and Southern Europe (CESE) within a global context. It strives to facilitate the information and communication flow within the region and internationally by supporting a recognized platform and networking media and thus promoting and improving the visibility and activities of the IT STAR Association.

The entities and stakeholders whose interests this newspaper is addressing are

- IT STAR's 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.

Individual articles from the Newsletter may be reprinted, translated, and reproduced, except for denoted copyright protected material, provided that acknowledgement of the source is made. In order to reprint material protected by copyright, please apply for permission to the Newsletter Editor.

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

The newsletter is circulated to the 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 editor@starbus.org. ■

"Congratulations for the Winter issue of the Newsletter."

Arrigo Frisiani, IFIP Councilor, ITALY ■

Joke of the Issue

A precious little girl walks into a pet shop and asks, in the sweetest little lisp between two missing teeth, "Excuthe me, mithter, do you have widdle bunny wabbits?"

The shopkeeper's heart melts, and he gets down on his knees so that he's on her level and asks, "Do you want a widdle white bunny wabbit, or a thoft and fuwwy bwack bunny wabbit? Or maybe one like that cute widdle bwown bunny over there?"

She, in turn, blushes, rocks back on her heels, puts her hands on her knees, leans forward and says in a tiny quiet voice, "I don't know, my boa won't thay." ■

World Computer Congress

It might be a surprise to some to read that the 1st World Computer Congress (or rather the 1st International Conference on Information Processing) was not an IFIP event but a conference organized by UNESCO in 1959. UNESCO's role in organizing the forum and being a catalyst for further development was paramount.

After IFIP was established, its first formal meeting being in Rome, Italy in 1960, it assumed responsibility for the world computer congress as the leading international forum in informatics.

The computer congresses have captivated the international ICT community. Presidents, emperors, kings and other notables have attended opening sessions to attest the role of computers for development. The last such case that we are aware of was in 2000 when the leader of China opened Congress 2000 in Beijing and spoke "off the cuff" in English on the role of IT, for which he was rewarded with a standing ovation.

Opening of WCC 2000 in Beijing: President Jiang (center) and IFIP President Bollerslev (3rd from right)

This is how this editor (then IFIP Executive Director) described the fascination of the Opening of Congress'98, held jointly in Vienna/AT and Budapest/HU in an invited article for Science International (NL 71/Dec 1999, ISSN 1011-6257):

"IFIP's 15th World Computer Congress in September 1998 was held consecutively in three locations - in Vienna, on Danube boats and in Budapest. It opened in the Vienna Musikverein with music by the Wiener Walzertraum orchestra. They played Allegretto **IFIP** iense and Strauss, including the Radetzky Marsch, to which the delegates applauded, just as during the New Year's concerts. During the opening, Dr. Gordon Moore, Chairman Emeritus of Intel Corp., used a wireless infrared connection between a video camera in the auditorium and his PC and made it possible for the audience to observe and hear a conversation over an ISDN connection between him and his colleagues in Santa Clara, California. This demonstration made it possible to view ¼-micron structures by means of a focused ion-beam microscope. While all this was unraveling many in the fully packed Musikverein were experiencing an IFIP Congress for the first time and were happy to be among the 1500 attendees representing 71 countries from all corners of the world."

From left: The Chairwoman of the NGO-UNESCO Liaison Committee, UNESCO's Director General, and the IFIP Executive Director, UNESCO Headquarters, Paris (Nov. 2002). There were excellent relations and many IFIP initiatives, which were financially and organizationally supported by UNESCO. IFIP was granted formal consultative status and its representative served as elected member of the NGO-UNESCO Liaison Committee for the period 1997-2001. Several "summit" meetings were held between UNESCO and IFIP officials.

Congresses were held in Paris (1959), Munich (1962), New York (1965), Edinburgh (1968), Ljubljana (1971), Stockholm (1974), Toronto (1977), Melbourne & Tokyo (1980), Paris (1983), Dublin (1986), San Francisco (1989), Madrid (1992), Hamburg (1994), Canberra (1996), Vienna & Budapest (1998), Beijing (2000), Montreal (2002), Toulouse (2004) and Santiago/Chile (2006).

AICA, the Italian Computer Association, is dedicated to organize a successful and innovative 20th WCC edition of the Congress from 7 to 10 September 2008 in Milan, with a record number of technical and industry conferences (*see Congress poster, p*. 6)
The 21st Congress is already scheduled to convene in Brisbane, Australia in 2010.

The Editor ■

The First "World Computer Congress", Paris, 1959

by Balint Domolki

Dr. Balint Domolki graduated in Mathematics and then received a postgraduate degree in Computer Science. He served as President and Honorary President of the John von Neumann Computer Society and held managing positions in various Hungarian software development organizations. He was founder and managing director of IQSOFT for the period 1990-97 and Chairman of its Board of Directors until 2003. Currently Balint is an expert at the National Council for Communications and Information Technology.

As a freshly graduated student of the Budapest University in 1957 I was lucky enough to be admitted in a team which was engaged in building the first electronic computer in Hungary[1]. This gave me the possibility to join two of my older colleagues in attending the first International Conference on Information Processing in Paris in 1959. This was my very first trip over the borders of Hungary. At that time it was not customary for young people to travel abroad, especially not through what was called "Iron Curtain" so it has been quite difficult to decide what fascinated me in a larger extent:

- to be at the most prestigious, high level gathering of the representatives of the profession I have chosen for my life and be able to listen to "legendary" names known from the literature (access to which, by the way, was not so easy at that time!), or
- to be just in Paris, "capital of the world"!

Not trying to give an answer to this question, nevertheless, I may say, that although since that time I have attended many World Computer Congresses (even took part in the organization of some of them), the most important impact to my life was given by this conference in Paris.

More than 1700 persons from 37 countries[2] interested in electronic computers gathered in Paris in June 1959 for the International Conference on Information Processing, organized by UNESCO. The idea of such a conference was proposed by the Joint Computer Committee (USA) in 1957 and UNESCO performed a very careful preparatory work, involving 22 consultants from all over the world and all fields of computer science (a few well-known names were those of I.L. *Auerbach*, M.*Goto*, A. van *Wijngarden*, M.V. *Wilkes*,….).

Five main topics were selected for the conference:

1. Methods of digital computing
2. Logical design of digital computers
3. Common symbolic language for digital computers
4. Automatic translation of languages
5. Pattern recognition and machine learning

In several countries "national groups" have been formed around academies of sciences and/or computer societies, proposing papers for the conference. Papers were first screened by these national groups and from the 163 proposed 60 were accepted for plenary presentation at the Conference.[3]

Additional events included

- a special session on "Computing Techniques of the Future" with topics like magnetic films, cryogenic components, parametrons, etc.
- 13 symposia on specific topics, including e.g. automatic programming (A. *Perlis*), methods of solving linear systems (J.H. *Wilkinson*) and programming procedures (E.W. *Dijkstra*)
- evening lectures on topics of general interest
- exhibition of information processing equipment AUTO-MATH 59, with a series of lectures presenting computers like Bull Gamma 60, IBM 7070, Hitachi HIPAD 501, RCA 501 etc.

Looking back to the program of the conference after almost 50 years, the following observations can be made:

- the program is dominated by topics about the structure of digital computers and their use for scientific and engineering computations (e.g. partial differential equations, meteorological calculations etc.)
- there is no trace of data processing in the sense as in later years it was used for business applications
- automatic translation of (natural) languages was considered as a very important topic, as there were big expectations about the development of such systems (not being realized for several decades…)
- programming languages were in the state of fast development, with main emphasis on "international algebraic language" later called ALGOL (born at a conference in Zurich in 1958). A basic paper on programming languages by F *Bauer* and K. *Samelson* was presented and J. *Backus* introduced here the ideas of syntax and semantic notations (later known as BNF – Backus-Naur Form)
- with such a strong interest on ALGOL it is notable, that the language COBOL, being born in the USA in these days was not mentioned at all. A paper titled "The structure and preparation of data-processing compilers" by Grace *Hopper* (who is commonly re-

[1] See: A Short History of Computers in Hungary, by Szentgyorgyi Z, Annals of the History of Computing Volume 21, Issue 3, Jul-Sep 1999 Page(s):49 - 57

[2] A figure to be envied by organizers of many recent World Computer Congresses

[3] Proceedings published in 1960 by UNESCO (Paris), R. Oldenbourg (München) and Butterworths (London) See: http://www.informatik.uni-trier.de/~ley/db/conf/ifip/index.html

ferred to as "the mother of COBOL") can be found among the rejected papers.
- national projects for building computers were presented by W.L. *van der Poel* (Netherlands) and M. Lehman (Israel), persons who later became big names in computer science.
- under the heading of "Pattern recognition and machine learning" several topics related to "artificial intelligence" can be found, e.g. some early studies on speech recognition, the basic paper of H. *Gelernter* on geometrical theorem proving and the much cited study of *Newell-Shaw-Simon* on a "general problem solving program".

A very important "by product" of the conference was the birth of IFIP. Quoting from the official announcement on June 18, 1959:

> "Representatives of computer societies from 18 countries met in Paris today to take the preliminary steps necessary to create an International Federation of Information Processing Societies which would carry on the sponsorship of future international conferences on information processing, including mathematical and engineering aspects, to establish international committees to undertake special tasks falling within the spheres of action of national member societies, and advance the interests of these member societies in international co-operation in the burgeoning information processing field."

A Provisional Bureau for the IFIPS has been set up chaired by I.L. *Auerbach* (USA) with vice-chairs A.A. *Dorodnicyn* (USSR) and A *van Wijngaarden* (Netherlands). By January 1, 1960, thirteen national professional technical societies had formally agreed to adhere to the statutes proposed by the Organizing Committee, and IFIP legally came into existence. The IFIP Council met for the first time in Rome June 16–17, 1960 and the series of world computer congresses continued in Munich in 1962.

It is clear that UNESCO had a very important role in organizing the worldwide cooperation in the information processing community. As P. *Auger*, Secretary General of the UNESCO-sponsored international conference said at the closing session:

> "In sponsoring this current International Conference on Information Processing, UNESCO accepted responsibility only for convening the first international meeting for those interested in the science of information processing. We had expected, and apparently correctly so, that such a meeting would act as the catalyst for the formation of an international federation."

The organizational work UNESCO performed in the preparation of the Conference was very professional and could serve as an example for organizers of future World Computer Congresses.

Moreover, as a service to the future, everything is very well documented and can be found on the Internet at http://unesdoc.unesco.org. Another useful source of information is the memoirs of I.L. *Auerbach* http://www.ifip.org/secretariat/corner/AuerbachonFounding.pdf ■

Q&A with the CEPIS President

Niko Schlamberger is President of CEPIS and the Slovenian Society "INFORMATIKA" and Vice President of IFIP

NL: ***CEPIS is pan-European, but there are regional ICT societies with their own agendas and sometimes competitive objectives. Comments?***

NS: First, we must realize that CEPIS is a membership organization. A brief pragmatic definition of such an entity is that it is established "by the members for the members", which may be physical or legal entities. CEPIS has been established to make the voice of IT European professionals heard and it meets the purpose very competently in the European arena by being active and visible in many projects sponsored by the European Commission. This is important because CEPIS member societies are also active in the European space but as opposed to CEPIS this is not their primary area of concern. As an entity in its own right it has its own agenda but regardless of that it must serve its constituency's plans, aims and goals. A part of this service is also supporting regional associations of its member societies, where and when it can do so. A necessary condition for such support is that CEPIS be provided input by interested parties upon which it may be able to react. The bottom line is that CEPIS must be supportive of national societies and their regional associations for which they should forward an adequate initiative. This has been failing in the past but could - and should - hopefully improve in future.

NL: ***These ICT societies have a wealth of experience for the EU and their common interests are best dealt with at membership levels. How can CEPIS help promote their agendas?***

NS: There is a variety of ways to meet such an objective such as a newsletter, a portal, meetings and more. Among other things CEPIS is also a forum where European national computer societies meet regularly. Whereas the regional associations mostly focus on regional matters CEPIS could offer a wider European perspective to interested member societies, be it that they have something to offer or that they wish something to be provided with. It can and surely will make available a hospitable and understanding ground for such activities but also in this case my expectation would be that an initiative comes from those that have such wishes. ■

ifip

AICA
Associazione Italiana per l'Informatica ed il Calcolo Automatico

IFIP
WCC 2008
WORLD COMPUTER CONGRESS
Milano

20TH WORLD COMPUTER CONGRESS

Milano (Italy), September 7-10, 2008

MIC - fieramilanocity

OPENING SESSION: GLOBALIZATION IN THE DIGITAL SCENARIO

HOSTED CONFERENCES: WOMEN AND TECHNOLOGY
e-INCLUSION
THE AICA'46TH NATIONAL CONGRESS

TECHNICAL CONFERENCES:

- Biologically Inspired Cooperative Computing - BICC [TC10]
- Distributed and Parallel Embedded Systems - DPES [WG10.2]
- 1st IFIP Entertainment Computing Symposium - ECS [TC14]
- Learning to live in the knowledge Societies - ED_L2L [TC3]
- History of Computing and Education - HCE3 [TC9, WG9.7, TC3]
- Human Computer Interaction - HCI [TC13]
- IFIP Artificial Intelligence 2008 -IFIP AI [TC12]
- 23rd IFIP International Information Security Conference - IFIP SEC [TC11]
- Advances in Information Systems Research, Education, and Practice - ISREP [TC8]
- Knowledge Management in Action - KMIA [WG12.6]
- Open Source Systems 2008 - OSS [TC2, WG2.13]
- 5th IFIP International Conference on Theoretical Computer Science - TCS [TC1]
- Topical Session on CAI (Computer Aided Innovation) [WG5.4]

INDUSTRY CONFERENCES:

- ICT for Sport & Fitness
- ICT for Tourism
- R&D for Textile and Fashion
- ICT for Environment
- ICT for Cultural Heritage
- Service Science
- e-Government
- ICT Professionalism & Competences
- e-Inclusion
- ICT for Health
- Web 2.0
- ICT for Education
- ICT Innovation in Finance
- Intelligent Hospital
- Smart Grids
- Intelligent Building
- Development Governance

Information and registration: www.wcc2008.org

in cooperation with: INTERNATIONAL TECHNOLOGY GROUP

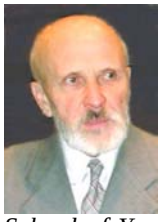
Computer History

We have published so far a series of articles on pioneering computer development in the region and worldwide, among them:

- *Blagovest Sendov and John Atanasoff II on John Atanasoff (Vol.2. no.1, Sept. 2004)*
- *Peter Bakonyi on John von Neumann (Vol.2. no.1, Sept. 2004)*
- *James W.Cortada (Charles Babbage Foundation) on "The History of ICT Goes Global" (Vol.4.no. 2, Summer 2006)*
- *Julius Stuller on Antonin Svoboda and the 1st Czechoslovak Computer (Vol.4.no.2, Summer, 2006)*
- *Giulio Occhini on ELEA, the 1st Italian Computer (Vol.4.no.2, Summer 2006)*
- *Kiril Boyanov on Vitosha, the 1st Bulgarian Computer (Vol.4.no.2, Summer 2006)*
- *Walter Grafendorfer on the first Datatron 205 in Vienna (Vol. 4.no. 3 Autumn 2006)*
- *Information on MECIPT 1 constructed in 1961 in Romania (Vol.5.no 4, Winter 2007)*

Now we are pleased to include in the series an article on the first computer in Lithuania.

The First Lithuanian Accounting Machine



by Gintautas Grigas

Assoc. Prof. Dr. Gintautas Grigas is an emeritus senior researcher at the Informatics Methodology Department, Institute of Mathematics and Informatics (IMI). He is a founder of the Extramural School of Young programmers in 1981, former head of the Programming Methodology Department of IMI, author of 30 books on Programming, Programming languages, teaching informatics (three books translated into Russian, one in Polish) and author of some 100 scientific papers and numerous science popularization articles.

In 1948 IBM launched the production of the highly successful accounting machine IBM 604. Ten years later a similar machine was designed in the Soviet Union and named EV80. The production of EV80 was carried out in the SAM factory in Moscow and at the Lithuanian factory VSMG (Vilnius Electronic Computer Factory). The machines of this class consisted of two devices: electronic processor and electro-mechanical punch-card input-output device.

The feedback of EV80 users had shown that the work of the machine was not stable, there were problems with the short age of vacuum tubes. The first job of Vilnius SKB (Special Design Bureau), established in 1959, was to modernize EV80.

In 1959, a team consisting of Feliksas Atstopas, Stasys Girliavičius, Gintautas Grigas, Steponas Janušonis, Algis Petrauskas, Kęstutis Ramanauskas, Donaldas Zanevičius and Romualdas Žlabys under the leadership of Antanas Nemeikšis began with the modernization of EV80. It was decided to decrease the number of vacuum tubes, to change the construction of hardware cells and provide more reliable connectors. At that time, the quality of semiconductor diodes was sufficient enough for logic gates but the parameters of the transistors were not yet stable. Thus the diodes were used for AND and OR gates but vacuum tubes remained in inverters (NOT cells) and memory elements (flip-flops). The machine was named EV80M.

Already during the working phase of the project we gradually realized that the machine was below our expectations and it became obvious that hardware based on vacuum tubes had no future. Only a single experimental copy of EV80M was produced.

We were looking for other ways simultaneously and we came to the conclusion that it is possible to design an entirely new machine based on ferrite-transistor elements, not requiring extra stability of transistor parameters. While working on EV80M we worked as well on a new project. Alfonsas Lipnickas, Jonas Puodžius, Regina Valatkaitė, and others joined our team.

The new machine was named Rūta after the name of the Lithuanian national flower rue (lat. *ruta graveolens*). The parameters of the machine were close to those of EV80 (or IBM 604), but the construction and logical circuits were entirely different. The circulation of data was dynamic, decimal digits were coded by the code 8421+3, ensuring higher stability of performance.

Processor (left) and input-output punched card device (right,) with members of the team

On December 23, 1962 after exhaustive testing the Joint Test Commission decided that Rūta was ready for production. Rūta was produced at the Vilnius Electronic Computer Factory until 1974 and 702 units were produced in total. The attractive features of the machine were simplicity of maintenance and low price, of course, relative to other machines of that time.
Rūta was exported to other Soviet republics and also to Bulgaria, Czechoslovakia, Germany, Poland and Romania.
The successful project was important by itself. In addition, this was the starting point for other Lithuanian computers: Rūta 110, M5000, M5100, SM1600, SM1700. ■

E-Skills

Digital Literacy - ECDL and the Future

by Jim Friars
Chairman, ECDL Foundation
Chief Executive, Irish Computer Society
*& ICS**SKILLS***

*Jim graduated from Queen's University, Canada with a degree in Science and Education in 1987. While living in Canada he was briefly involved with teaching before moving into sales and marketing with Merck Frosst Canada Inc. In 1993 he graduated from University College Dublin with an MBA and in 1994 joined Bioniche Canada Inc. as Business Development Manager and was stationed in Dublin with a brief to develop their European business. In 1997 Jim became Chief Executive of **ICS**SKILLS and has since established the ECDL as Ireland's leading computer literacy certification and has guided the company successfully into the Professional IT Certification sector. In 2002 Jim was elected Chairman of the Board of the European Computer Driving Licence Foundation, the governing body for ECDL and ICDL worldwide. During 2004 Jim became Chief Executive of the Irish Computer Society in addition to running ICS Skills. Jim served as President of the Ireland Canada Business Association from 1998 to 2000 and is a Member of the MBA Association and Institute of Directors.*

The ECDL concept is thriving. Approaching the 8 millionth participant and maintaining steady growth of over a million new candidates each year, ECDL Foundation has truly become established as the world's most relevant and important digital skills certification body.

At the core of our success is our dynamic worldwide Licensee network. The Foundation's business model and its relationship with Licensees are synergistic. Working closely with our Licensees by understanding their requirements, and propagating best practice in the development of our global Licensee network, is the key to our success.

Programme Development is a central function of the Foundation and is the most important service provided to all Licensees. Implementation of Syllabus 5.0 is in progress. We are committed to ensuring that the Core programme fits internationally through a consultative process that embraces flexibility to adapt to a changing digital skills landscape. Critical to our future success is our ability to respond to the fact that digital skills requirements in different market regions will move at differing speeds and directions.

The ECDL Foundation mission is to enable proficient use of ICT that empowers individuals, organisations and society, through the development, promotion and delivery of quality certification programmes throughout the world.

The ECDL network is committed to digital literacy all over the world. Information and communications technologies (ICTs) affect everyone every day - from interacting with our governments to working from home, from keeping in touch with our friends to accessing healthcare and education. Digital literacy is therefore critical to social inclusion, better public services and quality of life.

It is not just about Inclusion - ICT-related skills are vital for the competitiveness and innovation capability of the world-wide economy. ECDL has been a driving force in transforming organisations and defining the skills and talents needed to succeed in the modern economy. At the individual level, the ability to understand and make use of ICT - digital literacy - is proving essential to employment success, civic participation, accessing entertainment, and education - it is truly revolutionising how we work, live, play and learn. The fastest growing occupations require computer skills.

By using ECDL as a benchmark for digital literacy in their workforce companies have unleashed information and communications technologies and are remaking their business landscape. Through the implementation of ECDL, companies are intelligently integrating IT into manufacturing, supply chains, customer relations management, sales force training and administrative functions and are consequently saving millions of Euro and gaining competitive advantage. In many countries, ECDL has facilitated an increase in productivity wrought by the digital revolution. This was clearly illustrated in an ECDL NHS (UK) productivity study.

Central to the ECDL concept is an understanding that digital literacy will define winners and losers among societies. Just look at the economic success of Finland, Sweden and Ireland relative to so many bigger, more populous countries. Around the world, digital technologies are combating corruption, promoting democracy and expanding opportunity for those who have them and know how to use them.

Adaptation to the changing digital literacy landscape is critical to the evolution of the ECDL concept. Innovative capacity is now the key driver of future economic growth, productivity gains and wealth creation. To participate in this new economy, citizens must be digitally literate - equipped with the skills to benefit from and participate in the Information Society. This includes both the ability to use new ICT tools and the media literacy skills to handle the flood of images, text and audiovisual content that constantly pour across the global networks. ICT-literate citizens and workers are central to building and maintaining national innovative capacity and competitiveness. Supported by the ECDL network, we have responded to these drivers through our new certification programmes and our work with many governments to facilitate and empower the e-citizen.

Twenty years from now "digital literacy" will have moved on. The skills embedded in the original ECDL concept will be assumed in the concept of literacy itself.

Businesses that didn't develop the skills for use of the prevailing digital tools will be long gone and nations that failed to produce their own digital generations will have learned the hard way. For the concept to survive, the ECDL will have to evolve so that we continue benchmarking the skill set that will be defined by the technology required for participation in work and society. ■

A Training Project Driven by EUCIP Competence Framework

by Leonardo Dalle Rive

Leonardo Dalle Rive is an AICA Consultant for EUCIP (European Certification of IT Professionals)

An important Italian insurance company listed on the Milan Stock Exchange adopted the EUCIP competence framework for assigning budget training resources to its ICT staff.

The project was developed by Overnet Education, an Italian leading private training organization. It is one of the main Microsoft training partners, with the methodological assistance and participation of AICA, responsible for the EUCIP standard within Italy and author of the project pattern.

The deliverables were individual training plans and the project represents one of the activities a Competence Center can provide by going through some of the preliminary steps of the certification process.

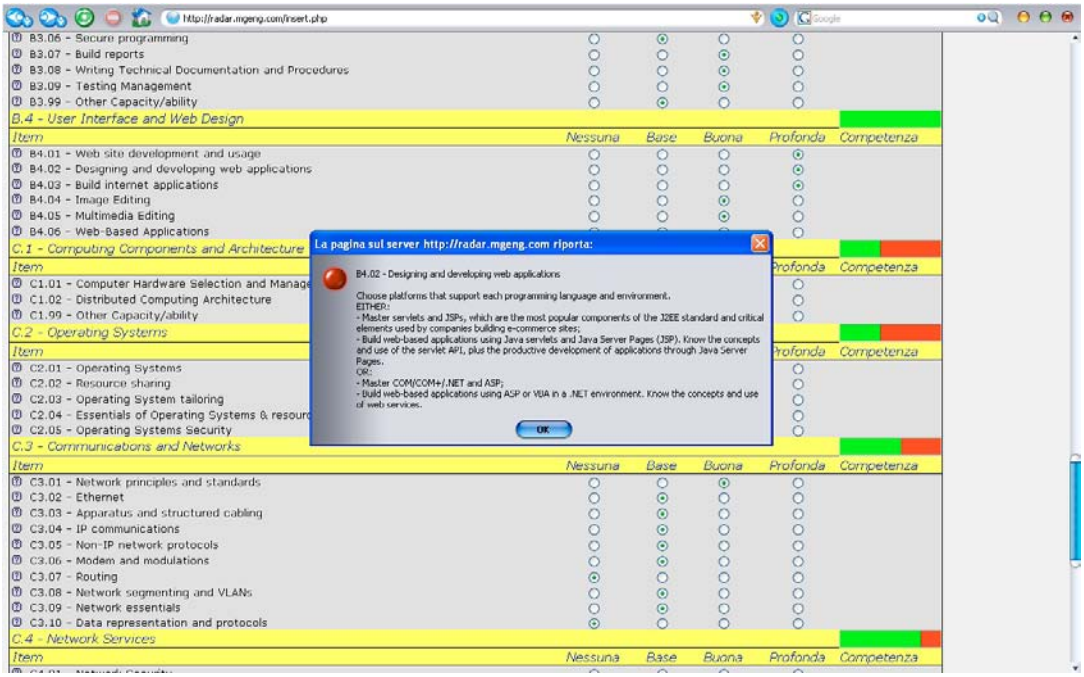
All ICT staff members were invited to join the project and to submit themselves to a validated self assessment of their competences. More than 90% of ICT technicians accepted to participate to the project, which developed according to the following steps:

1. By means of a software tool implemented by AICA and with explanations provided by AICA experts about the content of each elective category, the technicians were asked to specify for each elective category their degree of knowledge and skill according to the EUCIP competence levels (null, basic, incisive, deep). The self-assessment session lasted about 3 hours, after a 45 minute explanation of the software tool features. At the end of the session, the software tool produced to each participant her/his gap index, with respect to each EUCIP elective profile, as well as the list of categories where the declared skills were below EUCIP standard level.
2. After the session closed, the technicians were allowed to use the software tool by themselves for about one day. So they could go over their results and possibly change their assessment in case of a successive better understanding of the competences involved. Subsequently the experts examined each participant's results to determine the suitable questions to check the exact understanding of the category content as well as the proper assessment of the skill level. The questions were chosen with reference to the category requirements of the low-gap profiles.
3. Each technician had an individual meeting with AICA experts. During the meeting the experts verified the exact comprehension of the competences identified by the categories previously sampled by the experts and the proper evaluation of the skill level. When required, the participants agreed to modify some evaluations. The agreement with the company required that no direct question to test the competences could be asked by the experts. At the end, the target profile for personal professional growth was agreed by the technician and the experts, on the base of the obtained results, the type of activity performed by the technician for the insurance company and other related items. The software tool automatically produced the list of elective categories requiring skill improvement to reach the EUCIP elective level for the target profile.
4. The resulting training program was produced by comparing each list of categories with a suitable file provided by the training company. This file consists in the ordinary training company's catalogue, with offering of Microsoft, Cisco and other vendors' or institutes' courses, completed by the program content of each course, expressed through elective category codes. The same file records for each course the EUCIP elective module that can be taken at the end.
5. For the most advanced technicians, a road map to get EUCIP elective certification was also produced. Since almost nobody had previous technical certifications, the accredited module suggests that the EUCIP certification could not be fulfilled by the suggested modules alone. Therefore the road map generally included other elective modules chosen from the EUCIP elective level profile specification of the target profile.

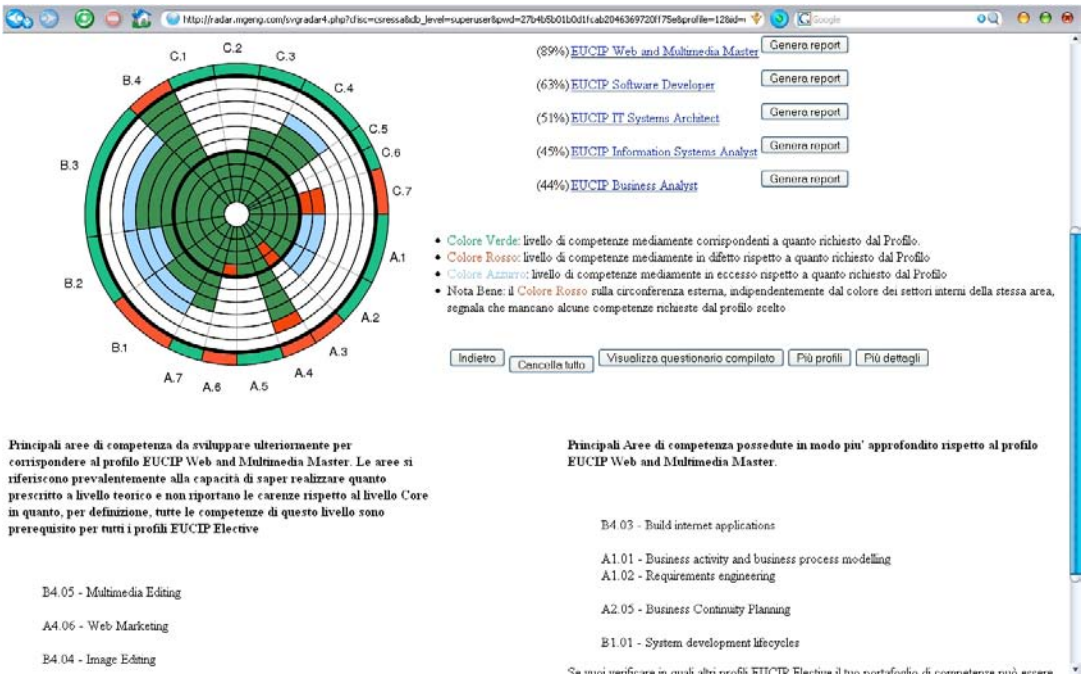
The project gave interesting results and feedback to the company ICT management. They got a good idea of the skill levels of their technicians and of the training days (and related costs) needed to reach the EUCIP elective levels. So they can distribute training budget resources in the right way to improve the technical human asset of the company, with respect to budget constrains. They also obtained a broader knowledge of the available competences, sometimes resulted from experiences reached in previous jobs, that could be useful to better assign people to ongoing or future tasks.

The participants also got a positive feedback from the project which allowed them to know their position according to a multinational standard of competences. Twelve different EUCIP elective target profiles resulted from the survey. The EUCIP elective certification process was highly recommended to approx. 25% of the participants.

Annexes



The software tool interface for collecting self evaluations



Output of the self-assessment tool showing the best profile proximity indexes and the list of categories missing EUCIP elective level for the selected profile (the first 'Web and Multimedia Master', in this case)

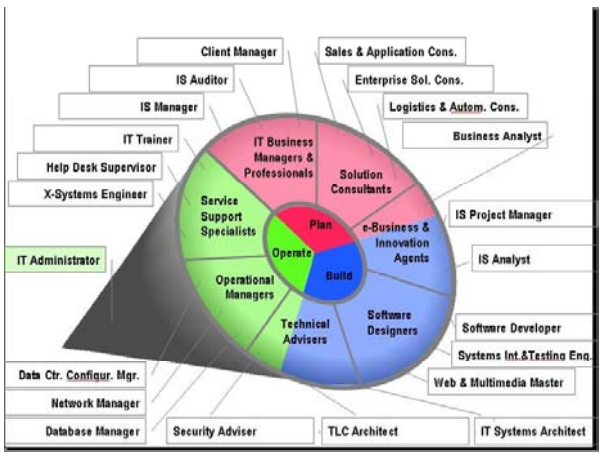


Image of all EUCIP elective profiles, 12 of them were identified as target elective profiles among the project participants ■

CEPIS
Council of European Professional Informatics Societies

The Council of European Professional Informatics Societies (CEPIS), as representative of the European Network of Informatics Professionals, is focusing on taking part in European initiatives to represent its Member Societies and to help improve the development of ICT Skills coordination at European level. Currently CEPIS is the project leader for Harmonise, a 36 month project funded by the European Commission under the Leonardo da Vinci Program of DG Education and Culture.

Harmonise aspires to establish comparable data on ICT vocational training systems and various approaches to ICT qualification and ICT certification in participating countries. The project aims to provide recommendations for the stakeholders in order to work towards the convergence of existing approaches to e-skills certification in Europe and beyond. In order to concentrate on the different scopes of the certification schemes, the study has been divided into four areas:

- **Demand and Supply** analyses the situation, the need and the importance of the certifications in the labour market.
- **e-Skills Certification** studies the certifications available at national or European level concerning their value, their importance and their specifications.
- **Market** concentrates on the organisation of the certification market in Europe.
- **Quality Assurance** of the certification schemes.

CEPIS acts as coordinator of the project. AIFB (University of Karlsruhe) and IFS (Institute for Future Studies) are the scientific leaders and are helped by the BCS (British Computer Society), AICA (Associazione Italiana per l'Informatica ed il Calcolo Automatico), GI (Gesellschaft für Informatik eV), NJSZT (John v Neumann Computer Society), the ECDL Foundation (European Computer Driving Licence Foundation) and EITS (Estonian Information Technology Society). In the long run the project intends to contribute to the actual developments towards the possible harmonisation in the field of ICT qualifications for ICT practitioners in the context of lifelong learning, drawing and building on the successful experience of the ECDL (European Computer Driving Licence).

To find out more about Harmonise visit http://www.cepis-harmonise.org

www.cepis-harmonise.org

harmonise IT
Toward Harmonisation of Information Technology Learning in Europe

Education and Culture
Leonardo da Vinci

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Europe's Skills Gap: "e-Skills Industry Leadership Board" is taking Action

by Hugo Lueders

Hugo Lueders is group director of public policy, CompTIA EMEA, and member of the ILB Executive Committee

Over 40% of Europeans have no basic ICT skills, and while demand for higher level e-skills is growing, the supply is declining. The consequences not only weigh on European competitiveness, but also lead to greater social exclusion and lower employability. Grasping the challenge of changing this gloomy perspective, members of the "e-Skills Industry Leadership Board" (e-skills ILB, www.e-skills-ilb.org) discussed with Vice-President Günter Verheugen and other officials of the European Commission at a high-level meeting on 4th March in Brussels concrete Priority Actions focussing on competitiveness and inclusion. Taking up on the recommendations of the EU Competitiveness Council in November 2007, the e-Skills ILB announced that industry will work closely with key stakeholders like the European Schoolnet, and support the pilot phase of the "European e-Skills Career Portal". Together with the "e-Competence Framework", currently being developed by the CEN/ISSS at European level, these two initiatives will help foster the mobility, competitiveness and employability of Europe's workforce.

Fostering inclusion skills of today's ICT practitioners is as important as training and education of future generations. This is not only reflected in ILB priority projects for 2008 but also in the ILB "Policy Declaration 2008" which was submitted on 4th March to the Spring Council to highlight the importance of maximising the contribution of every worker through investments in digital inclusion and life-long learning.
(http://www.e-skills-ilb.org/docs/e-Skills_ILB_Policy_Declaration_ 2008_final_22_Feb.pdf).

The e-Skills ILB's resolve to be a leading player in ICT skills training for practitioners and basic digital literacy for all users was reinforced by new research discussed at the 4th March meeting. In just one example, a CEPIS study revealed that the ICT industry could be facing shortages of up to 70,000 practitioners per year in Europe. CEPIS pointed out that with ICT now the cornerstone of the European economy, it was vital to build up and maintain a supply of creative, skilled workers to support it.

A White Paper on the "Skills Gaps in the World's IT Workforce", prepared and presented by CompTIA, and insight of an upcoming article to appear on the WEF Global Information Technology Report on the topic of the e-skills crunch by Professor Bruno Lanvin of INSEAD further underscored the urgency of the situation.

All policy actions and recommendations from the e-Skills ILB are built on best practices and seek to promote a greater role for multi-stakeholder partnerships with the goal to achieve larger scale and impact. The presence of European Commission VP Verheugen at the 4th March High-level meeting demonstrated the strong spirit of partnership and co-operation that has infused the e-Skills ILB since its launch in June 2007.

About the e-skills ILB:

The e-Skills Industry Leadership Board works in partnership with public authorities across Europe, other industry sectors, SMEs and all relevant stakeholders, building upon the European Commission recommendations and other reference initiatives on e-Skills.

Current e-Skills ILB members include: CEPIS, Cisco Systems, CompTIA, Econet, EITO, ECDL Foundation, EXIN, Global Knowledge Network, Hewlett Packard, Inlea Foundation, Intel, Microsoft, Oracle, Prometric and Siemens Enterprise Communications. For more information see www.e-skills-ilb.org. ■

Member Society News

Austria

One important objective of this newsletter is to provide greater visibility to IT STAR's member societies. Key coordinates are posted at http://www.starbus.org/download/memsoc.pdf and http://www.starbus.org/download/representatives.pdf contains photos and short profiles of their representatives. The Newsletter has published so far detailed information on the following societies:

AICA - Assiciazione Italiana per l'Informatica ed il Calcolo Automatico (Vol.5, no.1, Spring 2007)
ATIC - Asociatia pentru Technologia Informatiei si Comunicatii (Vol.5, no.3, Autumn 2007)
CSKI - Czech Society for Cybernetics and Informatics (Vol.2, no.1, Sept. 2004)
PIPS - Polish Information Processing Society (Vol. 5,no.2, Winter 2007/08)
SSCS - Slovak Society for Computer Science (Vol.4, no.3, Autumn 2006)

The following profile of the Austrian Computer Society is provided by its Secretariat:

Austrian Computer Society (OCG)

The objective of our OCG is the comprehensive and interdisciplinary promotion of information processing, with due regard to its effects on man and society. In fulfilling this objective, the Society performs seven primary functions:

- It serves as an umbrella organization of associations, organizations, and institutions in Austria involved in information processing (institutional members).

- It represents Austria in IFIP (International Federation for Information Processing) and in IMIA (International Medical Informatics Association) as well as in similar regional associations (e.g. CEPIS - the Council of European Professional Informatics Societies).
- It is an affiliate member of ACM (Association of Computing Machinery) and of the IEEE Computer Society.
- It provides members with services, information and consultation.
- It promotes research and development of projects, especially those of an interdisciplinary nature.
- It has several Working Groups dealing with specialized aspects in the field of information technology.
- It organizes international conferences and congresses and helps its member institutions to organize such events.

The Austrian Computer Society currently has more than 1500 individual members and more than 100 supporting and institutional members. With its monthly mailings it provides information about national and international conferences and congresses and publishes "OCG Journal" at least five times a year in German. Members have the advantage of obtaining reduced participation fees for conferences organized or supported by the Austrian Computer Society or any of their institutional members.

Croatia, Serbia and Montenegro

Forthcoming events:

- South-East Europe Forum ICT (SEFICT), 10 - 12 June 2008 Hotel EXCELSIOR, Dubrovnik, Croatia

ICT representatives of the Chambers of commerce of former Yugoslav republics founded SEFICT in 2002. The aim was to improve mutual collaboration in the region, trade and participation in projects financed by EU, USAID and other financial institutions. After years, SEFICT is open for all countries and ICT societies in the world.

Previous conferences were held in Herceg Novi, Montenegro (2002, 2003 and 2007), in Dubrovnik, Croatia (2004 and 2005), Belgrade, Serbia (2006)
Web-site: www.sefict.org

- 13th Congress JISA DICG, 08 - 14 June 2008 Hotel Plaza, Herceg Novi, Montenegro

During a decade this congress was organized the annual meeting of IT experts in Serbia and Montenegro. Today, after these countries separated, Congress JISA is co-organized by JISA and DICG, the Montenegrin computer society with a leading idea to establish closer cooperation among IT experts. The 13th Congress JISA DICG offers an excellent opportunity to get familiar with all ICT news and possibilities to inform about the practical usage in various concrete fields.
Web-site: www.jisa.org.yu

Greece

Forthcoming event: 12th Panhellenic Conference on Informatics, 28-30 August 2008, Samos island, Greece.

Topics: The PCI 2008 Conference will run in parallel sessions, with invited talks, research and case study tracks. Authors are invited to submit papers in any area of Informatics, Computer Science, Computer Engineering, Telecommunications, and Information Systems.
Web-site: http://www.icsd.aegean.gr/pci2008/
Contact: sgritz@aegean.gr

Hungary

Forthcoming event: International eVITA 2008 Conference and Exhibition, 3-5 April 2008,Budapest.

Topics: "ICT assisted living", "ICT in the service of everyday life".
Web-sites: http://evitaevent.eu,
http://evita.njszt.hu/conference-and-exhibition.

Italy

Forthcoming event: Didamatica 2008, April 28-30, 2008, Taranto is the annual convention organized by AICA to provide an extensive and in-depth view on informatics in education and teaching

Web-sites:
http://aicanet.net/eventicontestuali/subscribableevent.2007-12-05.0440941492 , http://didamatica2008.di.uniba.it/
Email contacts: segreteria@aicanet.it,
didamatica2008@di.uniba.it.

Slovenia

Slovenia is the first new EU Member State to hold the Presidency of the EU Council during the first half of 2008 - http://EU2008.si/en

An established series of events in Slovenia are the Bled eConferences. This year's edition (http://BledConference.org) on "eCollaboration: Overcoming Boundaries Through Multi-Channel Interaction" is the 21st in the series and will convene 15-18 June, 2008 in Hotel Golf, Bled.

Conference co-organizers: eCenter, Faculty of Organizational Sciences, University of Maribor; Government of the Republic of Slovenia; European Commission and European Parliament.

Information on past Bled eConferences is available at http://BledConference.org/Previous-Conferences and the proceedings are posted at http://domino.fov.uni-mb.si/Proceedings.

Type of organization

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

Web-site

www.itstar.eu

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
- Bulgaria (2003) K. Boyanov
- Croatia (2002) M. Frkovic, M. Glasenhart
- 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 communication technology organization in Central, Eastern and Southern Europe which promotes, assists and increases the activities of its members and encourages and promotes regional and international cooperation for the benefit of its constituency, the region and the international ICT community."

Governance

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

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

2006 –	Giulio Occhini
2003 – 2006	Niko Schlamberger
2001 – 2003	Plamen Nedkov (currently Chief Executive)

Major Activities

- 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%20REPORTrevised.pdf
- Support to Member Society initiatives and events

Periodicals

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

1st ANNOUNCEMENT AND CALL FOR CONTRIBUTIONS

3rd IT STAR Workshop on

National Information Society Experiences – NISE 08

8 November 2008, Budapest, Hungary

Host Society: John v. Neumann Computer Society - **NJSZT**

Mission: *To investigate the current state, problems and challenges in the development and application of National Information Society strategies in the IT STAR region so as to identify best practices and key issues of common interest and facilitate policymaking within the Region and the European Union.*

Steering Committee

V. Baltac, Romanian Association for ICT
K. Boyanov, Bulgarian Academy of Sciences
B. Domolki, John v. Neumann Computer Society
G. Dukic, Informatics Alliance of Serbia
M. Frkovic, Croatian Information Technology Society
M. Holynski, Polish Information Processing Society
P. Indovski, Macedonian Assoc. for Computer Techn.
S. Katsikas, Greek Computer Society
P. Nedkov, IT STAR
G. Occhini, Italian Computer Association
I. Privara, Slovak Society for Computer Science
V. Risak, Austrian Computer Society
N. Schlamberger, Slovenian Society INFORMATIKA
J. Stuller, Czech Society f. Cybernetics & Informatics
E. Telesius, Lithuanian Computer Society

Program

The one-day event based on **keynotes, national and institutional reports and panels** will gather senior representatives of academia, government and industry. **Representatives of all stakeholders from the region and internationally** wishing to share their experience and views on IS strategies are offered the possibility to submit proposals for topics and papers.

Abstracts of max. 500 words as presentation proposals should be submitted to Plamen Nedkov <nedkov@utanet.at> by 1 July. Confirmations of acceptance will be made by 15 August and the full presentations (max. 6,000 words) would be expected by 15 September.

The program will build upon the findings of the previous 2 IT STAR Workshops on R&D in ICT and Universities and the ICT Industry, as well as on the joint IT STAR – FISTERA WS on ICT and the Eastern European Dimension (information and proceedings are available at www.itstar.eu).

Each IT STAR member society is invited to designate 2 participants (including eventual speakers) whose local costs for the event will be provided for by the hosting society. For other participants a registration fee will be charged which will also include a copy of the conference proceedings. Further details will be announced.

Contacts

Balint Domolki <bdomolki@gmail.com> (local arrangements, program)
Plamen Nedkov <nedkov@utanet.at> (international coordination, program)

For IT STAR information please visit http://www.itstar.eu
or contact your IT STAR Member Society and its representative on the Steering Committee

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www.bas.bg

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