Newsletter - Calibrated for Creative Communications

Vol. 5, no. 4, Winter 2007/08

From the Editor

2007 was exceptionally good to this newspaper. We experienced an increase of interest and readership which no doubt is due to the quality of the contributions and the friendly advice and recommendations.

The time is right to thank our authors, patrons, readers and friends and to wish everyone happiness, fulfillment and peace in the coming New Year.

Season's greetings and all the best for **2008**!

**** Chestita Nova Godina * Sretna Nova godina * Scastny Novy Rok * Prosit Neujahr * Kenourios Chronos * Boldog Ooy Ayvet * Felice anno nuovo * Laimingu Naujuju Metu * Srekjna Nova Godina * Szczesliwego Nowego roku * An Nou Fericit * Sretna nova godina * A stastlivy Novy Rok * sreèno novo leto ****

This winter issue of our newsletter focuses on important items that comprise the big ICT picture without loosing the perspective and detail of developments within the IT STAR region.

Enjoy,

Plamen Nedkov

Contents:

Letters to the Editor:

P. Nedkov, Leesdorfer Hauptstr. 96
A-2500 Baden, Austria
e-mail: **editor@starbus.org**, web-site: **nl.starbus.org**

Advisory Board

New members

In the Summer issue (Vol.5, no.2, summer 2007), we introduced Messrs. Giorgio Ausiello, Augusto Casaca and Marc Bogdanowicz as members of the newly established Advisory Board of this newspaper.

Further to that information, we are pleased to present the following personalities with leadership roles in promoting international ICT developments who recently accepted our invitation to join the Honorary board and advise us on policy and editorial matters in their broad fields of competence.

Ashley Goldsworthy holds leadership positions in many commercial and not for profit ventures such as the Australian Institute of Technology, the Business/Higher Education Round Table, Triton Foundation Ltd., Smart Employment Solutions Pty. Ltd., and other. He was President of the Australian Computer Society and of IFIP and served as Organizing Committee Chair of World Computer Congress 1996 in Canberra.

Blagovest Sendov is currently ambassador of Bulgaria to Japan and the Philippines. He was Rector of Sofia University, President of the Bulgarian Academy of Sciences and Speaker of the Bulgarian Parliament. His former international posts include President of the International Association of Universities, Extraordinary Vice-President of ICSU and President of IFIP.

Cene Bavec is professor of Management and Information Technology at the University of Primorska, Slovenia. He served at senior positions in the Slovenian Government, including State Secretary (Minister) for Technology. He was previously with IBM and managed the IBM - University relations in Central Europe, Asia and the Middle East.

Jan Wibe is chairman of IFIP's Technical Committee 3 on Education. He served as Chairman of the International Program Committee of World Computer Congress 2002 in Montreal and as IPC member of several other congresses.

The full list of our Advisory Board is available at http://nl.starbus.org

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.

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. ■

Joke of the Issue

New Year's Parties: Signs to Take it Easy with the Cheers

- You yawn at the biggest bore in the room... and realize you're facing the mirror.
- You refill your glass from the fish bowl.
- You ask for another ice cube and put it in your pocket.
- You complain about the small bathroom after emerging from the closet.
- You strike a match and light your nose.
- You take out your handkerchief and blow your ear.
- You tell everyone you have to go home... but the party is at your place.
- You hear someone say, "Call a priest!" ■

Organization

IT STAR Meets in Timisoara, Romania

Timisoara was a pleasantly refreshing experience for the participants in IT STAR's fall meeting on 6 October 2007.

With 336,000 inhabitants, Timisoara is one of the largest Romanian cities and a leading cultural and economic center in Banat, western Romania. It is a multicultural city with several "firsts" to boast with, including to have been the first European city with electric public lighting. It currently enjoys a significant economic development with growing foreign investment especially in high-tech sectors.

The President of ATIC, **Mr. Vasile Baltac** and his team did a splendid job in hosting IT STAR in a remarkable location. **Mr. Horia Gligor,** ATICs regional Coordinator for Transylvania and Banat, was available at all times with helpful explanations related to the region and the academic and business communities in Timisoara. The participants had the pleasure to meet with **Mr. Dan Bedros**, CEO of Alcatel-Lucent South-East Europe, who presented a detailed overview of the activities of his organization in Romania and the region.

The IT STAR meeting is remembered for several decisions that took the Association forward, among them:

- To accept the Polish Information Processing Society (PIPS) as a member society
- To carry-out an independent analysis of the technical side of IT STAR's Professional Pool Database before proceeding with its implementation phase
- Strategies for the Development of the Information Society in IT STAR countries in Autumn'08.

The program included a visit to the Banat Museum (Computer History Section) to see MECIPT – 1, a first generation Romanian computer built in Timisoara in 1961 *[see photo and the computer's technical specifications on page 10]*. There, ATIC's President presented an award to a team of students from Arad University in recognition of their Computer History site.

During the evening the IT STAR guests attended a concert and fireworks to celebrate the recently elected Romanian Patriarch Daniel. ■

PROFILE: New member of IT STAR

Polish Information Processing Society

by Marek Holynski

Marek Hołynski is President of the Mazovian (Central Poland) Branch of the Polish Information Processing Society. After graduating from the Warsaw Institute of Technology in 1975 he received his Ph.D. at the Polish Academy of Sciences. In 1981-89 he was professor at Boston University and research fellow at the Massachusetts Institute of Technology (MIT). Then he worked in Silicon Valley, designing computer graphics workstations (Indigo, Indy and O2) used for animation, special effects and TV/film postproduction. In 2004-06 he was vice-president for new technologies of the Polish Public Television (TVP S.A.) where he initiated mobile Internet and interactive TV projects.

The Polish Information Processing Society (PIPS) is a Warsaw-based nationwide professional association established on 22 May 1981. Its main objectives, as stated in its statutes, are to support scientific and technological activities in all IT and computer science areas and to perfect methods of their effective use in the national economy. Other goals of the Society include to facilitate communication between professionals, to popularize computer issues, information society development and IT applications, the enhancement of its members' knowledge and professional ethics, as well as to represent the Society's members, their opinions, needs, interests, and rights in relation to the public, local and central government and other associations in Poland and abroad.

Members of the Society are individuals who have graduated from a computer science department or have a degree in information technology, any other college or secondary school graduates whose occupation for at least 3 consecutive years preceding admission to the Society was closely related to information technology, as well as students of computer science or related departments from third year onwards of study.
At present, the Society's membership is approximately 1,350 with 10 full time employees. The members' background is mostly of higher education and research institutions all over the country, employees of IT companies and public administration. The Society's activities have been delegated to its 9 Regional Branches, 5 Local Circles, and 9 Specialized Sections, that assemble members according to their territorial location or specific professional interest.

The Society achieves its objectives through ongoing educational activities, i.e. by organizing courses, lectures, exhibitions, domestic and foreign study trips, technology shows, competitions, also by publishing and popularizing the knowledge of all IT and computer science areas. It organizes congresses (i.e. the National IT Congress), conferences (biggest one is the Annual International Multi-conference on Computer Science and Information Technology), the World Information Society Day (under the auspices of UN, UNESCO and International Telecommunication Union) and scientific and technological events, both in Poland and abroad. It supports inventiveness in information technology and co-operation with relevant Polish and foreign business entities, institutions, committees and scientific and technological societies, political and professional organizations. Additionally, PIPS has some achievements in the introduction of computer science to schools in the development of strategies for the progress of computer science and information technologies in Poland, as well as in the standardization of legislation.

Within PIPS operates the Chamber of Consultants – a group of about 90 carefully screened members, whose experience makes them experts in different ICT areas. They provide various opinions, reviews, evaluations audition, and help screen projects run by government institutions and private companies.

In 1992, PIPS was the first organization from the post-communist countries to become member of the Council of European Professional Information Societies (CEPIS) and since then actively participates in that organization. Among others it is solely responsible for implementing computer skills certification programs such as ECDL and EUCIP. ■

CEPIS

During the recent CEPIS meeting in November Geoff McMullen's term as President came to an end and he entered the office of CEPIS Past President for one year. The new President of CEPIS is Niko Schlambereger (SI).

Visions from IPTS

European ICT industries at the Regional Level

by Marc Bogdanowicz

Marc is Action Leader, Information Society, Competitiveness and Growth (DG JRC) IPTS, Seville

There is a growing perception of the fact that ICT strongly determines the way EU regions keep pace with, and possibly benefit from, the globalization process. Factual evidence suggests that ICT-led growth is strongly localised geographically. For instance, references in the press and media to the astonishing economic performance of the Silicon Valley, Dresden and Bangalore, to name a few, have become common places. It follows naturally that regions are increasingly seen as a natural dimension to consider in order to observe and to understand the ongoing transformations and structural/technological changes being enabled by ICT.

From a policy perspective, there is also an increasing awareness of the need to adopt, together with country-level initiatives, regional policies, given that the nature of ongoing technological change and innovation dynamics have a strong local/regional component such that public policies need to be designed at this level as well. However, when looking at the existing literature on the location of ICT industries in EU regions and on the impact of ICT investment on regional growth and cohesion, one is left with very little available evidence.

The Institute for Prospective Technological Studies[1] has taken up the challenge to bridge this gap between policy concerns and existing empirical evidence at regional level. The present article introduces briefly to a series of studies and a forthcoming IPTS report to be issued by the end of 2007[2].

The objective is to document the regional impact of ICT by mapping the location of the ICT industry in the EU25, by analysing the volume and nature of ICT employment across European regions, by identifying the determinants of EU regions attractiveness for ICT businesses' location and, finally, by assessing the contribution of ICT investment to regional growth and convergence.
The main results presented in the report are summarised below.

[1] The Institute for Prospective Technological Studies (IPTS) is one of the seven research institutes of the Joint Research Centre of the European Commission.
[2] This report, entitled "Mapping the ICT in EU Regions: Location, Employment, Factors of Attractiveness and Economic Impact" will be freely downloadable from the Publications of IPTS at http://www.jrc.es/

The study shows that the ICT industry tends to be rather geographically concentrated (indicated by the share of total ICT employment they accumulate). This is rather counter-intuitive as it challenges the claim of ICT favouring 'the death of distance' and the emergence of footloose industrial activities. This concentration trend is particularly true for the Computer and Software Services sub-sector (Nace 70).

This concentration is mainly happening along the axis going from the South of the UK, the Benelux, South of Germany, Île de France and North of Italy. Simultaneously, these regions develop an important industrial specialisation in ICT activities (indicated by the high share of regional ICT employment on total employment). Again, this specialisation trend is strongly governed by the fast growing Computer and Software Services sub-sector.

Interestingly, while this sector also tends to be located in the richest EU regions, the EU has also witnessed over the past decade the emergence of new nodes, new regional clusters in the Madrid region, in particular, but also in the South of Scotland, Ireland, the South of Finland and Western regions of Sweden as well as some regions located in the EU10, around the capital cities of Warsaw, Budapest and Prague mainly.

Simultaneously, the overall decrease in employment in the EU ICT manufacturing sub-sectors has been only partially compensated by its increase in Eastern Europe, a misbalance that might be illustrating the relocation trend of ICT manufacturing further to the East (China for example). This overall decrease has translated into marked increases in the *proportion* of skilled workers in the richest EU regions, while in the EU10 the nature of employment denotes a lower skill-content mainly associated with the ICT manufacturing activity.

Before 2000, multinationals tended to favour locations in regions of UK, Ireland, the Netherlands and Germany. Since then, a growing number of multinationals have located subsidiaries in the EU10, but particularly in ICT Manufacturing. Here again, the overall European ICT evolutions are largely governed by the booming ICT Computing Services sub-sector. For this specific sector, the western European ICT poles identified earlier have been the most attractive for foreign investors. A number of factors appear to be especially influential for attracting multinationals such as the level of regional GDP, the degree of industrial specialisation, the level of education and the density of ICT SMEs established in a particular region. The level of industrial specialisation appears to be especially important in the case of the Computing Services industry while the presence of ICT SMEs appear to be more influential for attracting multinationals in ICT manufacturing.

As we see above, most results tend to reinforce the idea that the impressive growth of the ICT Computing Services sub-sector has tended to drive the overall changes in employment and location, concentrating growth, agglomeration and higher qualification mainly in western European regions already highly specialised in those Computing services, such as the Ile d France, Madrid, etc.

Turning to the impact of ICT investment on regional convergence, the present study provides a number of novel and potentially important results by considering the specific case of Spanish regions. The reason why the study focuses on Spain is related to the fact that reliable data on ICT investment by region has recently been made available for this country while, to date, no such comparable data was available in other EU countries. The literature and existing evidence suggest that the economic benefits of ICT should be more likely to take place in countries (and regions) highly specialised in ICT-producing industries. Given the predominance of the Madrid region in Spanish ICT industry evidenced in the study, one would therefore expect a much more pronounced impact of ICT diffusion on economic growth in this specific region such that ICT would not necessarily contribute to greater regional convergence in Spain. Despite this, our results show that ICT investment appears to have contributed significantly to regional convergence despite the great spatial concentration of Spanish ICT industry around Madrid.

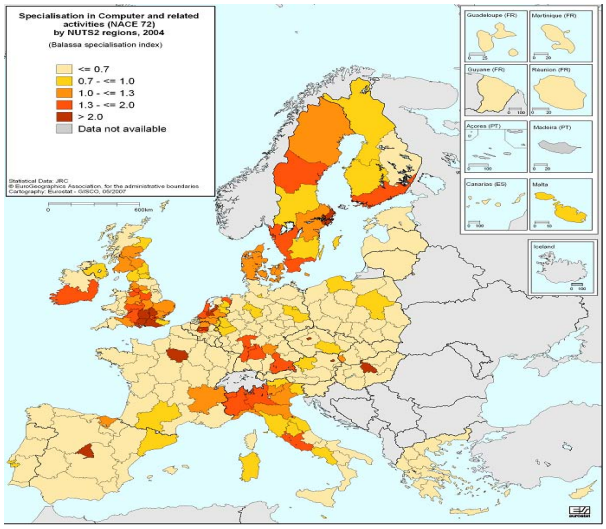
The results obtained in this study provide a number of important policy implications. The study has provided evidence for the role played by the Computing Services sector in recent employment and skills' changes in the ICT industry as well as for the emergence of new regional growth poles in the EU. Departing from traditional business models, this sector of activity presents relatively low sunk costs, especially in terms of physical capital requirement while having strong innovative and skills' content. Low sunk costs, in particular, tend to shift the allocation of available resources towards investment in human capital and innovative capability. In order to meet the challenges of improving productivity and competitiveness, Europe should play to its strengths and develop existing growth poles as well as favour the emergence of new ones as shown, for instance, by the emergence of new ICT-services poles such as Madrid, the South of Ireland and the North of Scotland. These regions are good examples of the potential offered by ICT services activities and also of the role played by labour skills in order to favour the emergence of growth poles.

Certainly, infrastructures remain a key point – specifically, telecommunication infrastructures – for promoting regional development of innovative ICT activities. However, future Cohesion policy programmes should consider the shift in the relative importance and nature of the measures to be taken as to simultaneously promote labour ICT skills and the use of ICT by SMEs, given the role played by these factors to improve the attractiveness of European regions, especially when considering foreign direct investment.

Finally, our results concerning the impact of ICT investment on regional convergence provide a number of novel findings, which are of direct relevance for policy making, especially concerning EU cohesion policy. In

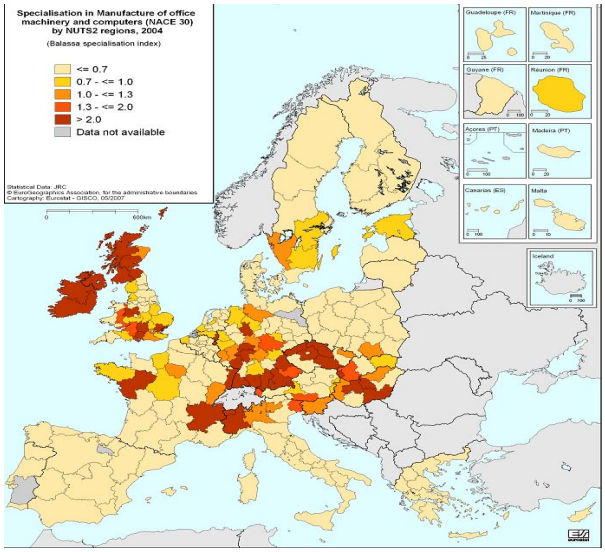
particular, the study shows that ICT capital tends to promote regional economic convergence. Regional policies aiming to promote regional cohesion must then consider ICT diffusion as a potentially important tool to promote convergence throughout the EU. Policies promoting ICT diffusion cannot be considered as stand-alone policies. In particular, education and skills do play a very important role. Importantly also, the study shows that the absence of high ICT specialisation, as in the case of most regions analysed in the Spanish case study in this report, should not be seen as a major barrier to promote the impact of ICT on regional development.

Map: Specialisation in Computer and related activities (Nace 72) by NUTS2 regions, 2004



Sources: Eurostat (Structural Business Statistics and Labour Force Survey) and IPTS computations

Map: Specialization in Office Machinery & Computers (Nace 30) by NUTS2 regions, 2004



Sources: Eurostat (Structural Business Statistics and Labour Force Survey) and IPTS computations

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World Computer Congress

INTRODUCING WORLD COMPUTER CONGRESS 2008 IN MILAN

by Prof. Judith Bishop, Prof. Ivo de Lotto and Dr. Giulio Occhini

Judith Bishop is Co-Chair of the International Program Committee of WCC '08. Judith is Professor of Computer Science at the University of Pretoria, South Africa. Her special subjects are programming languages and distributed systems.

Ivo de Lotto is Co-Chair of the Congress '08 International Program Committee. Ivo is the immediate past president of AICA and Professor of Computer Science at the University of Pavia.

Giulio Occhini is Chairman of the Congress '08 Organizing Committee and Chief Executive Officer of AICA.

The 20th World Computer Congress (WCC 2008), organized by AICA under the advocacy of IFIP, will take place for the first time in Milan, Italy from 7 to 10 September 2008.

Welcome to the city of fashion, business and luxury. Milan can offer masterpieces such as the Duomo, Leonardo da Vinci's "The Last Supper" and the Basilica di Sant'Ambrogio, great hotels and excellent food. The city is all about earthly pleasures. Shopping is of quasi-religious significance, the opera (the lavishly renovated La Scala), theatres and cinemas flourish in this fashionable milieu, as well as the club scene and many, many tempting restaurants. But these are only a few faces of the cosmopolitan city as Milan is also the capital of the Italian ICT industry and business. The tourist attraction of Milan, Lombardy and Italy needs no special introduction and the Congress participants will be offered to benefit from excellent travel packages.

The hosting society AICA (*Associazione Italiana per*

l'Informatica ed il Calcolo Automatico) is determined to make WCC one of the best Congresses ever. Milan is easy to reach and the venue of the Congress, the Milan Convention Center, is in the center of the city.

In being awarded to host the Congress Italy competed with Belgium, Sweden and Singapore and AICA is very proud to organize this International Congress as an important focal point for the international scientific ICT community at large. The Organizing and Program Committees will be doing their best to encourage strong attendance form Europe and North America, but are also working hard to have large delegations from other world regions including India, China and other. The Organizers are dedicated to develop an extraordinary program that will be disseminated through massive and continued communication. In addition to the technical conferences, there will be application sessions to address industrial needs and IT exploitation of best practices, related to, among other issues, Cultural Heritage, Tourism, Sport and Fitness, Textile and Fashion, Environment.

The scientific program for the Congress includes a record number of 12 full conferences from IFIP's Technical Committees.

These conferences are:

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

Each conference is managed by its own program team. Interested participants are advised to check the concrete details with respect to paper submissions, deadlines and other requirements which are available from the individual conference pages at http://www.wcc2008.org/site/news.php?idnews=140
The proceedings, following a stringent review, will be published by Springer Verlag.

During the four congress days delegates, coming from all world regions, will debate the main questions and perspectives in the ICT domain that are at the heart of the economy and knowledge of the 21st century and in the evolution of our society.

WCC 2008 will provide links between Business and Research. This new Italian approach will give the possibility to match specific subjects of the technical committees with cross subjects of the Italian reality, involving business and industry sectors.

The following cross sessions will convene:

- E-Government
- ICT for Cultural Heritage
- ICT for Environment
- ICT for Sport & Fitness
- ICT for Tourism
- IT Competences
- Service Science

Further concrete information about the sections is posted at http://www.wcc2008.org/site/crosssession.php.
The Organizers aim to include presentations on national experiences and best practices from key ICT players and regions worldwide.

Registrations

A Congress registration discount of 25% is provided to all persons registered by **31 January 2008** - the fees for Early Birds are € 600,00 for non-members, € 487,50 for IFIP/AICA delegates and € 210,00 for students. The details and online registration are at http://www.wcc2008.org/site/registration.php. Additionally, group registrations are possible and IFIP member societies and other organizations that wish to benefit from such a possibility are welcome to contact AICA for the details.

Another special is the Leonardo da Vinci Game for participants who register before March to play and get a discount, as well as a precious book.

The Congress program and all other related information is posted at www.wcc2008.org. ■

Member Society News

Bulgaria

In conjunction with the 25th Anniversary of the International Foundation " St. Cyril and St. Methodius", the Union of Bulgarian Mathematicians supported by the foundation and the Ministry of foreign Affairs organized on 20 and 21 October 2007 in Sofia an international Conference on ***"Give Talent a Chance"***

The Anniversary ceremony was attended by leading Bulgarian politicians, ambassadors and representatives

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.

of diplomatic missions to Bulgaria, prominent scientists and cultural representatives from the country and internationally. The conference opened immediately after the formal ceremony with a Keynote address by the Secretary General of the Volkswagen Foundation on "Crisis-Competition-Creativity: Changes in German and European Higher Education, Research and Technical Development". Then followed presentations of a series of national reports from Bulgaria, Greece, Italy and Romania and 2 round tables on "The Role of Talent for the Implementation of the Lisbon Strategy" and "the Attraction of Talented youngsters to Professional Realization in Research and Innovation". The leading transversal theme was international competitions, and the International Olympiad in Informatics (IOI) in particular, as a means to attract and motivate talented young *people [see also article by P.Kenderov in Vol. 5. no.3. Autumn 2007 of the NL on the IOI]*.

AICA, the Italian member of IT STAR, was represented at the conference by Mrs. Genovie de Vita, Council member and inspector at the Italian Ministry for Education, who presented the Italian experience in organizing teams for the IOI.

IT STAR was represented by its Chief Executive. ■

Hungary

Intelligent Systems 2007 -- 2nd Symposium of Young Scientists

by Péter Szeredi

Péter Szeredi is Associate Professor at the Budapest University of Technology and Economics, and Chairman of the Artificial Intelligence Section of the JvNCS.

The one-day Symposium of Young Scientists on ``Intelligent Systems 2007" was held on November 23, 2007 in Budapest. The Symposium, with the Hungarian acronym IRFIX'07, was organized by the Artificial Intelligence Section of the John von Neumann Computer Society (JvNCS, http://www.njszt.hu/neumann/neumann.head.page?nodeid=210), the Hungarian member of the European Coordinating Committee for Artificial Intelligence (ECCAI). The Program Committee of the meeting consisted of members of the Executive Board of the AI Section of JvNCS: --Tibor Gregorics, Bálint Molnár, Edit Sántáné-Tóth, Péter Szeredi, Zoltán Vámossy, and László Zsolt Varga.

The main goal of the meeting was to provide a forum for young researchers in both theoretical and practical AI for presenting their work, and to support the exchange of ideas between the Hungarian research groups in AI. The present Symposium was held on exactly the same day as the first, very successful edition, in 2006.

The 2nd Symposium included 12 talks and 12 poster presentations, in various sub-fields of Artificial Intelligence (http://sas.ilab.sztaki.hu/njszt-mi/szimpozium2007.htm). The talks were organized in three sessions -- Declarative Technologies, Machine Learning, and Applications. The conference featured an invited talk by Prof. Tibor Vámos, ECCAI fellow, on "What is the use of epistemology, the critical examination of knowledge". There were over 50 participants, representing a broad range of Hungarian higher education and research institutions, as well as company research labs. There was a lively discussion after each talk, which continued during the concluding poster session.

The John von Neumann Faculty of Informatics of the Budapest Tech (http://www.nik.hu/en/) proved to be an excellent host of the event, in its new building at Bécsi út, Budapest.

The Symposium was part of the Hungarian Science Festival, a month-long series of lectures, conferences, celebrations, and other events (http://www.tudomanyunnep.hu/index.php?id=2564), commemorating the founding of the Hungarian Academy of Sciences in 1825.

Following the Symposium the authors of both standard and poster presentations were invited to submit papers to a special issue of Acta Cybernetica, scheduled to appear in 2008. Acta Cybernetica is a scientific journal published by the Institute of Informatics, University of Szeged, Hungary (http://www.inf.u-szeged.hu/actacybernetica/starten.xml), which has Artificial Intelligence as one of its focal topics. It may be worth noting that the special issue of Acta Cybernetica, devoted to the first IRFIX Symposium, has just appeared, and contains six papers, from the authors of talks presented at the 2006 conference.

The organizers of the Symposium hope that the enthusiasm of the Hungarian AI community will persist and a successful 3rd edition of the meeting will be held in the autumn of 2008. ■

Italy

AICA announces ECDL Health

Effective understanding by end-users (health professionals and support staff) of key e-health principles and challenges is essential for the safe, effective, and sustainable use of health informatics systems.

In nearly every country the health professionals practicing for more than ten years will have undertaken their basic professional education and early practice in an environment based on paper-based records; the most senior and experienced health practitioners will certainly have been educated ahead of the e-health revolution.

The use of a health informatics system requires a radical range of new skills. These commence with the ba-

sics of operating any computer system, through to the skills required to record data electronically or to the skills needed to navigate a record. For all these reasons it is therefore important for end users to be adequately educated to use systems soundly and effectively. This is a key part of the sustainability of systems.

It therefore seemed logical to develop a specific supplement or module for the ECDL/ICDL, given the risks and responsibilities inherent in using such systems. This concept was first promoted in 1999, at the Third European Conference on Electronic Health Care Records.

In 2004 the NHS Information Authority agreed to support two consultation workshops – one for key opinion leaders in health informatics from eight European countries, and one for a range of delegates from the National Health Service across the United Kingdom. As a result of these meetings, the European Computer Driving Licence Foundation agreed to consider formalising the development process. The ECDL Board endorsed this, and in 2005 an Expert Group was set up comprising representatives of six European countries and of the United States of America. The resultant recommended syllabus was signed off by the Expert Group in early 2006.

The final EDCDL/ICDL Health Supplement consists of a competencies framework defining knowledge and skills the candidate needs to possess in order to operate a health information system safely. The core contents of the syllabus are copyright to the ECDL/ICDL Foundation, and comprise the following topics:

- Concepts
  - Health Information Systems
  - HIS Types
- Due Care
  - Confidentiality
  - Access Control
  - Security
- User Skills
  - Navigation
  - Decision Support
  - Output Reports
- Policy and Procedure

The content is designed to accommodate specific national language and terminologies, organisations, and legal and professional frameworks. It is based on the assumption that the candidate will already be competent in basic computer user skills.
Since the specification phase, rapid progress has been made in significantly different countries, with very different health systems, different languages, and also different terminology and nomenclature.

In the United Kingdom, the British Computer Society organised pilots of the syllabus in six different sites, involving 84 persons.

The American Medical Informatics Association (AMIA) and the national ICDL licensee, ICDL-US, worked closely during 2006 to create a US-version curriculum which adapted the syllabus developed by the ECDL Foundation group; the US version was then reviewed by the ECDL group. The test has been piloted in early 2007.

AICA instructed Bocconi University and La Sapienza University to work out and complete the Italian health syllabus, based on the core syllabus, and the test structure. By June 2007 Italy implemented two pilot editions of the course addressed to medical doctors and nurses of the Dolo (Venice) and Milan Local Healthcare Units. Participants have been offered four courses of ECDL Start (24 teaching hours), plus a specific course of ECDL Health (8 teaching hours). At the end of the courses, final exams have been held and skill cards have been issued accordingly (including, for the first time ever in Italy, those relating to ECDL Health).

The Italian experience stands out for its special focus on the preliminary planning of the initiative, also being based on a scientific research project conducted in 2004 aimed at measuring the potential benefits of information education and training in the healthcare sector. This research project has analysed and evaluated the "cost of IT ignorance" in the Italian healthcare sector through a sample survey, empirical measurement tests, and experience of a similar research project conducted on private businesses. Ignorance in the information field has proved to be a notable hidden cost for the Italian healthcare sector, and the potential value of information education and training of the health system personnel amounts to about 2 billion Euro per year. ■

Romania

Computer History

MECIPT 1 and Vasile Baltac (Photo 1962)

MECIPT 1 (The acronym stands for Electronic Computing Machine of the Polytechnics Institute of Timisoara) was completed in 1961 as a "first" university project and the second computing machine in Romania, after CIFA-1 of the Institute of Atomic Physics, Bucharest (1957). It was a first generation computer consisting of electronic tubes (~2000), discrete resistors and capacitors (tens of thousands). The speed was 50 op-

erations per second (increased in 1962 by Vasile Baltac to 80-90 ops by a special memory allocation), the memory was a magnetic drum with 1028 words of 30 bits each. Programming was in machine code with input of instructions and data on punched paper tape. The output was in the form of an electric typewriter adapted with electromagnetic actuators. The structure was based on micro-programming inspired by articles from Maurice Wilkes, the British computer pioneer.

MECIPT 1 marked a first Eastern European cooperation, the memory drum being produced by an institute in Budapest, Hungary. As slow as it was, the computer was used for scientific and technical calculations, among them the calculations for the large dam on the river Arges and the dome of the Exhibition Hall in Bucharest.

MECIPT 1 was followed by MECIPT 2 (1964) fully transistorized, ordered and used by a Construction Design Organization in Timisoara. MECIPT became a symbol of IT in Romania, and many people from MECIPT later contributed to the development of the Romanian computer industry. ■

Marketing and the Web: Shaping the Company around the Customer

by Carlo Iantorno, Citizenship Initiative Manager, Microsoft Italy

First-class marketing

After more than a dozen years of amazing web achievements, doing good marketing, and using the internet to do so, is still an opportunity for many companies. Much of the reason for that is, not surprisingly, because still many organizations underestimate the importance of marketing as a central piece of the corporate strategy, and some are not yet ready to give enough attention to some of the breakthroughs that the web enables.

For many years and for a lot of companies, marketing has often been considered quite limited in scope. Some small companies consider marketing an expense for promoting the company's image and products, others a tool for the sales department; some large companies relegate the marketing operations, strategy and even culture to a more or less confined "marketing function". But it is now mainstream thinking that marketing is a structured way to identify, value and select the market opportunities and to define the strategies for a company to become competitive and unique in its markets[3]. Marketing is an invaluable tool to have success through quality and price, to identify ways to increase a company's market share, to value innovation in products, processes, customer relations and alliances, to explore new markets and develop new businesses, to modernize the company around the customer.

The web is providing a number of applications and ways to further improve the effectiveness of marketing. By putting together marketing and the web in a thoughtful way and making the effort to make it work, a company can thrive and catch unexplored opportunities.

Web marketing evolution

The early internet investments for a company were limited to having *presence*. The company web site would give corporate and product information and maybe provide selling transactions (*commerce*). With the advent of the dotcom boom, e-commerce became the rule, but soon a lot of attention focused on *personalization*, a way to transform the information that a web site has on the user clicking and buying patterns to identify new promotional and selling opportunities. Techniques such as collaborative filtering would allow making predictions about the users' interest. In reality personalization did not live to its expectations: many users have preferred to use *customization* instead, i.e. the ability of users to modify the page layout, specify the content to be displayed and easily configure their purchase choices. In the last few years, techniques to allow users to actively contribute to the contents of web sites and the popularity of forums and user feedbacks, has allowed the affirmation of a *collaborative* marketing. This enables companies to be closer to the customers in designing, promoting, selling, servicing the products, with the aim of enhancing customer satisfaction. But the new tools in communication, such as webcasts, webinars, web conferencing, podcasts, live meetings, allow closer *interaction* and are thus opening an entire new chapter in customer experience.

Web marketing focus	Relevant technologies
Presence	HTML
Commerce	Transactions, Content Management Systems
Personalization	Collaborative filtering
Customization	Search engines, Ratings, Preferences
Collaboration	Forums, Wikis, Peer production
Interaction	Blogs, RSS, Webcasts, Podcasts

Tab. 1 – Prominent technologies in the various stages of web marketing

But the web promises to do more, as company strategists identify new ways to improve the business with a more effective use of the internet. I will discuss here three scenarios: one is the possibility to tightly integrate a company's communication and customer engagement strategy. The second is to reach target segments that

[3] *Kotler on Marketing. How to create, win and dominate markets*, Philip Kotler, 1999, The Free Press

really influence the company reputation in the market. The third is the possibility to build powerful partnerships. The paper closes on the next big opportunity for a company: being a champion in the new wave of sustainable marketing.

Better customer experience

Companies engage customers in a variety of ways and for different reasons: to communicate, to sell, to service, to advise. Weak companies let these different actions to be handled separately, by distinct processes rarely in synergy with one another. But customers suffer from inconsistent behavior and want a single, streamlined interaction with the company. For example, a bank transaction can appear complex and the user would like to contact a call center, with hopefully a quickly available and gentle representative. Or buyers of goods on the internet would like to track their order and know whether the parcel has been sent and when it would be delivered, and have the choice to cancel or return their purchase.

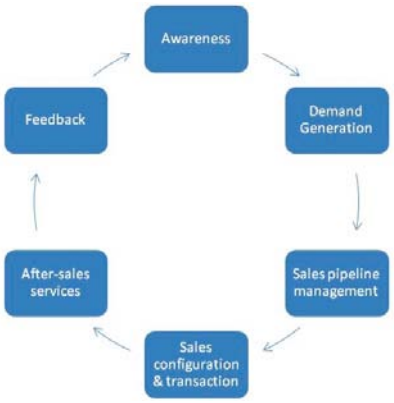

Fig. 1 - Customer engagement cycle

The web is a wonderful tool to *integrate* all of the customer experience efforts of a company, so that they can be finalized to acquire new customers, satisfy them and get their feedbacks, in a way that these can be fed into the offering strategy and improve it. The engagement cycle can be depicted as illustrated in Fig.1.

In the customers *awareness* stage, basic information is sent to customers to raise their attention. Communication is the broadest possible and contains simple, effective messages. The web allows to immediately upgrade curiosity or vague interest in sales opportunity: banners link to an informative site where the user can get more information and continue their evaluation on more informed grounds.

Demand generation is a more targeted step. When customers show an interest in a product or service, they enter a pipeline of sales opportunities for the company that subsequently will proactively contact them to push forward the sales cycle and possibly complete the transaction. One way to do demand generation is to put banners in specialized sites or buy search keywords that refer to the products of interest. Another way is to launch a webcast or webinar by inviting selected purchase decision makers to attend. These live events are proving successful in a world of busy people.

The *sales pipeline management* is a fan-shaped process by which the opportunities gathered in the demand generation phase get worked upon. To transform some of them in a real sale it is necessary to follow all the due steps, such as contacting the customers and involving all relevant people (or external partners) in the process. In this phase a number of software applications get involved: a Sales Force Automation tool for coordinating the work of all representatives involved and proper intranet and extranet sites for sharing information among all relevant parties.

After-sales services are as important as the actual sales phase, especially if a company is serious in satisfying and retaining the customers, who look for maintenance, product upgrades, training or simply information during their products life-cycle. In the case of software products, for example, the customers will use updates and patches, but also information and training on features, security options, configurations and programming.

The marketing cycle completes with the customers *feedbacks*, which can include comments on the products features or suggestions on how to improve them. Hopefully, the company is organized to get these feedbacks and input them into the offering strategy process, so that future products or services can take these suggestions into account. Again, the web is an invaluable tool to get this information from customers.

By linking together seamlessly all communication and sales processes, the web is a powerful tool to build a company around its customers. It is capable of hiding all internal processes, organizations and policies and provides an environment that speaks the language of the customers and acts the way they understand.

Better relations

Even the best engineered products or the most creative solutions are not enough for a company to have success in the marketplace. Many times, success must be reached first with the influencing communities, made of authoritative people that may not be potential customers but, because of their role in business or society, are capable of getting mind share among the potential clients.

Some of the primary influencers are journalists, financial and market analysts, industrial associations, opinion leaders, recognized professors and professionals in the field, influencing end-users, bloggers. Governments are among these communities, since some of their decisions may set policies for the public, which may affect your products or the way they can be distributed or sold.

If your company decides to engage with some of these influencers, the first thing it might want to do is to build its own Circle of Influence (COI), by putting the

various influencing communities in "tiers", where the size of the higher tier is much lower than that of the lower tiers, so that specific relationship strategies can be applied.

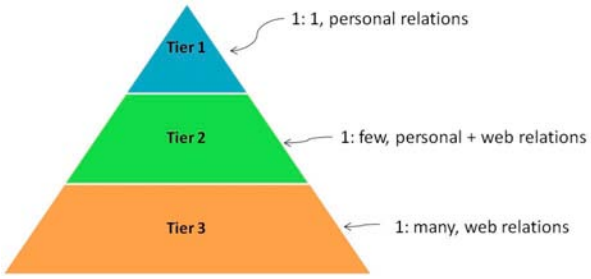

Fig. 2 - Tiers of a Circle of Influence

Usually the highest tier is better worked upon with a personal approach, while the web offers interesting opportunities for approaching the lower tiers.

A company must be a thought leader in its domain of expertise if it wants to gain the respect of many influencers. By partnering with experts, it can produce communication events (such as podcasts) to familiarize people with in-depth subjects which may be of interest to many, or build contents and send them to selected journalists for publication, or give voice to its web sites to specific influencers. With the internet, the company can build a powerful network of contacts and keep it live, becoming a hub of ideas and an authoritative actor in the community.

Better partnerships

In a fully global and interconnected world, companies succeed when they are able to multiply their force by engaging with commercial, engineering or service partners that work in the marketplace to provide additional value to the customers, and usually get a profit out of it. In the IT world this is the norm because computer systems and software must serve to solve simple or complex business problems and no company alone can usually provide the solutions just "out of the box". Therefore, a number of partners (application developers, solution providers, systems integrators, training houses) provide a bit of the total value that the user wants. But also in other fields partnerships are usually a core activity for a company.

Web applications provide a lot of opportunities for companies to do excellent work with their partners:

- Commercial partners such as distributors or retailers can have access to product, pricing and ordering information and also get early knowledge of the company's marketing campaigns, through extranet sites and applications such as e-catalogue and e-procurement.
- Sales opportunities can be shared with commercial partners which pick up the leads at a company extranet site, do the work they need to do and return the information on the same site, possibly linked to the organization's sales application.
- Engineering partners can share technical information and work on common projects, thanks to solutions that allow sharing knowledge without getting inside of the companies' firewalls.
- Advertising partners can provide "ad placing" with software tools that allow running the "ad" at the proper sites and at specific times or when specific keywords are typed.
- Service partners (for example a call center working on behalf of the company) can access detailed information on products and services by sharing a repository of data.
- Information providers, such as news agencies, financial information networks or market analysts, can distribute the information in real time directly to the company's managers.

But the web allows even further excellent work in partner relationship. I would mention two scenarios.

The first is to *collaboratively build information* on your company's web site by making the partners add the description of added-value services or solutions that they provide, together with examples and success stories, plus contact information and reference to the partner's web site. In this way the company's web site gets rich quickly with little effort and the customers find it much more relevant.

The second scenario is to *get creative about communicating* with the partners. With the tools the web provides, it's just a matter of imagination. Special contents can be packaged periodically and delivered electronically to the relevant people within the partners community: partners find it valuable to have exclusive access to new products or research, or to sales or marketing campaigns. Web sites or blogs can be set up to give voice to partners, by letting them directly address issues and provide special content.

When partners are fully integrated in the marketing effort, all forces combined give way to an entire *ecosystem* that is much stronger than the original company's own resources. Customers want to see this whole thing and possibly have a unified view and interact with a single entity. Customer experience means keeping it integrated, keeping it simple.

The future: Sustainable Marketing

In modern society, there is an increased sensitivity towards businesses that help keep a healthy, clean world, are fully compliant with the laws and society's ethical principles, give local help over social and work issues, sustain education and encourage inclusion. Businesses are expected to contribute and they should increasingly do so, also because employees increasingly want their company to be socially involved.

The future of marketing is to be *sustainable*, meaning that better communications, better relations and better alliances can help to build a better world. Marketing and Citizenship should be strongly integrated. But how to do itand how can the web help?

My first suggestion is to avoid, whenever possible, single actions which give a brief high visibility but have basically no impact, unless the action is a leading example on how to do things better. Companies can be more effective if they concentrate the few resources available by building *machines*, i.e. long-lasting programs which are impactful, scalable and self-sustainable. A small organization in Italy[4], as a way to give its contribution to society, has developed an efficient process to refurbish old computers and distribute them without a profit to Non-Government Organizations. The company has had a high visibility in the press and is moving ahead to have even higher impact.
Doing things organized and scalable is something where the web can help significantly, because of its reach capabilities. If you start a campaign on a just cause, you can set up blogs or a web forum where to get friends that sustain the cause. The viral effect of the web can multiply your efforts quickly. Even web advertising can be of help: some portals give away free banner impressions to non-profit organizations on specific campaigns.

The other suggestion is to work in *partnership*, by building a way to involve other private and public institutions on big issues, relevant to the local society. Companies should involve all their network when pursuing a good cause: from their influencing community to their commercial partners and even to their customers and employees. The Citizenship web site will quickly be crowded with testimonials and contributions to their cause.

One example of Citizenship commitment is to provide training to young disadvantaged people or seniors that do not have other ways to get cultural or technical skills to live a better life, or to enter or re-enter the job market.

Another example is to protect the cultural heritage of the local community. Art work cataloguing and digitalization can be a good way to spread the culture of arts and to increase the business opportunities of the local cultural institutions. Also the sponsorships of local libraries and digitalization of their most appropriate contents can have a meaningful impact on the local community. Work done by Microsoft at the Biblioteca Ambrosiana[5] in Milan has proved how amazing the benefits of arts digitalization can be.

Fig. 3 - Ambrosiana: from the past to the web

Here are some of the ways to use the web to run Citizenship campaigns:

- Banners that click to the company's social campaign sites.
- Human stories, with photos and videos, used as evidences to prove the effectiveness of the company's social initiatives.
- Discussion forums on the social campaigns that the company decides to engage.
- Hosting the voice of third parties, through interviews or podcasts.
- Selling items or certificates to fund social initiatives.

Marketing is an incredible tool to make the company work better. Sustainable marketing is the next frontier. The internet, with its reach, power and flexibility, can play a precious role in both. We can be sure that leading companies will look forward to exploit the vast potential of these worlds. ■

Who hits most?

In our Summer 2007 issue (Vo.5, no.2) we published information on the incoming traffic at www.itstar.eu. Then, the IT STAR pages were most-frequently visited by users of the **.com** and **.net** domains.

At present, Italy's **.it** has gained a significant lead, before **.com** and **.org**. Next, in descending order follow **.at, .yu, .hu, .sk, .be, .lt, .ro, .ch, .si, .cz, .nl, .au, .fi, .no, .pl, .in, .uk, .gr, .org** and other domains.

4 *Banco Informatico*, www.bancoinformatico.com

5 Biblioteca Ambrosiana, www.ambrosiana.it

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. ■

IT STAR Member Societies

Austrian Computer Society – OCG
Wollzeile 1-3,
A-1010 VIENNA, Austria
Tel. +43 1 512 0235 Fax +43 1 512 02359
e-mail: ocg@ocg.at
www.ocg.at

Bulgarian Academy of Sciences – BAS
Institute for Parallel Processing
Acad.G.Bonchev str.Bl.25A
SOFIA 1113, Bulgaria
Tel +359 2 8708494 Fax +359 2 8707273
e-mail: boyanov@acad.bg
www.bas.bg

Croatian Information Tech. Society – CITS
Ilica 191 E/II,
10000 ZAGREB, Croatia
Tel. +385 1 2222 722 Fax +385 1 2222 723
e-mail: hiz@hiz.hr
www.hiz.hr

Czech Society for Cybernetics and Informatics – CSKI
Pod vodarenskou vezi 2,
CZ-182 07 PRAGUE 8 – Liben
Czech Republic
Tel. +420 266 053 901 Fax +420 286 585 789
e-mail: cski@utia.cas.cz
www.cski.cz

Greek Computer Society – GCS
Thessaloniki & Chandri 1, Moshato
GR-18346 ATHENS, Greece
Tel. +30 210 480 2886 Fax +30 210 480 2889
e-mail: epy@epy.gr
www.epy.gr

John v. Neumann Computer Society – NJSZT
P.O. Box 451,
Bathori u. 16
H-1054 BUDAPEST, Hungary
Tel.+36 1 472 2730 Fax +36 1 472 2739
e-mail: titkarsag@njszt.hu
www.njszt.hu

Associazione Italiana per l' Informatica ed il Calcolo Automatico – AICA
Piazzale R. Morandi, 2
I-20121 MILAN, Italy
Tel. +39 02 760 14082 Fax +39 02 760 15717
e-mail: g.occhini@aicanet.it
www.aicanet.it

Lithuanian Computer Society – LIKS
A.Gostauto 12 – 123
LT-01108 Vilnius, Lithuania
Tel. +370 2 62 05 36 Fax +370 2 61 99 05
e-mail: liks@liks.lt
www.liks.lt

Macedonian Association for Information Technology – MASIT
Dimitrie Cupovski 13
1000 SKOPJE, Macedonia
e-mail: indovski.p@gord.com.mk
www.masit.org.mk

Polish Information Processing Society
Al. Solidarności 82A m.5
01-003 Warsaw
Tel./Fax +48 22 838 47 05
e-mail: marek.holynski@gmail.com
www.pti.org.pl

Asociatia pentru Tehnologia Informatiei si Comunicatii – ATIC
Calea Floreasca Nr. 167, Sectorul 1
72321 BUCAREST, Romania
Tel +402 1 233 1846 Fax +402 1 233 1877
e-mail: info@atic.org.ro
www.atic.org.ro

Informatics Alliance of Serbia – JISA
Zmaj Jovina 4
11000 BELGRADE, Serbia
Tel.+ 381 11 620374 Fax + 381 11 626576
e- mail: dukic@jisa.org.yu
www.jisa.org.yu

Slovak Society for Computer Science – SSCS
MFF UK, Mlynska dolina
SK-842 48 BRATISLAVA, Slovak Rep.
Tel. +421 2 65426635 Fax +421 2 65427041
e-mail: SSCS@dcs.fmph.uniba.sk
www.informatika.sk

Slovenian Society INFORMATIKA – SSI
Vozarski pot 12
SLO-1000 LJUBLJANA, Slovenia
Tel. +386 123 40836 Fax +386 123 40860
e-mail: info@drustvo-informatika.si
www.drustvo-informatika.si