Newsletter - *Calibrated for Creative Communications*

Vol. 8, no. 4, Winter 2010/11

Good Vibrations

It's the right time to convey our grateful thanks to our readers, authors, patrons and friends for the encouragement and support throughout 2010.

We hope this publication has generated many good vibrations and look forward to future communications.

** Chestita Nova Godina * Sretna Nova godina * Scastny Novy Rok * Prosit Neujahr * Kenourios Chronos * Boldog uj Avet * 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 **

Season's Greetings and Best Wishes for 2011!

The NL Team

Contents

Editor

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

Letters to the Editor

Extracts from emails to the Editor with respect to the last issue … comments and suggestions are always welcome – our coordinates are on page 1.

"Congratulations for this new issue of IT STAR Newsletter. As usual, it is very interesting and eye-catching".

Vasile Baltac, **Romania**

"Thank you ... "

Marijan Frkovic, **Croatia**

"SSI INFORMATIKA distributes the Newsletter to all its members and I can assure you that the publication is highly appreciated. I recommend all societies in the Region to do the same".

Niko Schlamberger, **Slovenia**
[Statement during IT STAR's business meeting on 13 November 2010 in Zagreb, Croatia] ■

Jokes of the Issue

It was Christmas Eve and a snowstorm was raging outside.

Two hurried drivers bumped, and as they got out of their cars the first one shouted, "I had right of way!".

"Possibly", said the second, "but that is really not the point as we are in my garage."

* *

A woman comes running home screaming at the top of her lungs, "Pack, pack! I won the Christmas lottery!"

The man, all excited, runs up to her and says, " Where are we going? The mountains …the islands?"

"Who cares", she says. " You just pack and GET OUT!"

* *

Food for Thought

- The young know the rules, the old know the exceptions.
- He does not get lost all the time; he discovers alternative destinations.
- If you remain calm, you just don't have all the facts.
- Women who seek to be equal to men lack ambition.
- If at first you don't succeed, redefine success.
- Some days you're the dog, some days you're the hydrant.

EDITORIAL POLICY

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

The stakeholders whose interests this newspaper is addressing are

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

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

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

Electronic Business

The 5th IT STAR Conference on Electronic Business took place on 12 November 2010 in Zagreb, Croatia.

Its program consisted of the opening address and keynotes that laid the background for further debate, presentations on national and international experiences in the field, and a section on e-Business Skills. 15 presentations were delivered focusing on national reports and developments in such areas as e-Signature, e-Invoicing, e-Commerce, customer protection, standardization, websites, skills, challenges for e-Business and other, with some 70 participants from academia, business, government and professional ICT societies attending this full-day event.

The Conference Declaration is published on p. 8.

Most of the presentations and many conference photos are posted at http://starbus.org/ws5/ws5.htm. A post-conference book with the reviewed and edited papers and conference proceedings will be published in February 2011.

The Zagreb e-Business conference was successful in terms of content and organization and there are considerations to start a series of future IT STAR events on the e-Business topic.

There are many to thank for this outcome and above all CITA – IT STAR's Croatian member, and its representatives and staff, who ensured excellent organization and great hospitality.

Excerpts from the Opening Address and the Keynote presentation of the Chairman of the European Information Technology Observatory (EITO) are published below. ■

Proceedings of the 5th IT STAR WS on Electronic Business, 12 November 2010, Zagreb, Croatia
Editors:
Giulio Occhini, Marijan Frkovic & Plamen Nedkov

ISBN: 9788890540615
Expected date of publication: February 2011

For further information about this and other IT STAR publications and their availability contact **info@starbus.org**

Opening Address

President of the Croatian IT Association

by Mladen Glasenhardt

Ladies and Gentlemen,

I am delighted and honored to welcome you here in Zagreb, on behalf of the Croatian IT Association (CITA), on the occasion of the 5th IT STAR Conference on Electronic Business.

The Conference Organizing Committee has decided that this year's conference theme is e-Business, a topic that is very timely because e-Business is one of the conditions for each country's transition towards the Information Society. As there is a significant foreign exchange among our countries, e-Business will certainly contribute to speeding up operations and reducing costs.

The aim of this conference is to analyze the achieved state of the introduction and implementation of e-Business in the IT STAR member countries, stress present obstacles, and propose a way to resolve them.

The members of the Croatian IT Association are involved in implementing e-Business activities in Croatia during the period 2007 – 2010.

In order to provide conditions for quicker development of e-Business in the region, with information literacy being an essential prerequisite, CITA organized in 2007 the first annual regional ECDL conference. The 2008 event was in Slovenia, followed by Serbia in 2009. This year it will be organized in Sarajevo, Bosnia and Herzegovina, in December.

The Government of Croatia adopted the Strategy for the development of e-Business for the period 2007-2010.

According to the data of the Croatian National Bank for 2009, 665 thousand citizens and 162 thousand business entities are using Internet banking.

In 2009, citizens had more than 21 million Internet transactions amounting to 2.8 billion Euros, while businesses had more than 45 million transactions with more than 103 billion Euros.

Based on the actual indicators, it is to be expected that the future development of e-Business in Croatia will lead to significant savings at the level of the government and the economy. Based on parallel data for Denmark and Croatia, the expected savings from the introduction of e-invoice in the public sector alone are estimated at 40 to 54 million Euros per year. Savings from the introduction of e-invoicing in the economy were estimated based on a similar study for France (savings at the level of 40 billion Euros per year). Parallel data for Croatia suggests savings would amount to approximately 850 million Euros per year.

There are no significant legal obstacles to the development of e-Business in the Republic of Croatia. It is therefore necessary to undertake intensive actions aimed at informing the wider public about the rights and rights protection mechanisms that are already established.

Public administration bodies must continue with intensive efforts to introduce electronic services for the citizens and businesses with the implementation of advanced electronic signatures, along with the acceptance and issuance of electronic documents, and to establish a system for the exchange of electronic documents between the state administration and judicial bodies.

Electronic documents are the essence of e-Business. In addition to replacing existing hard-copy documents they provide further automatic processing of such documents without human intervention.

The e-invoice is the most widely applied electronic document in the world. Even though it covers only a segment in the entire procurement chain, the e-invoice assumes a central role in the development of electronic business. Since the e-invoice contains essential VAT calculation details, the implementation of the e-invoice is of special importance for the enforcement of the national fiscal policy. The widespread presence and use of Internet banking in Croatia is the foundation for achieving maximum effects from the introduction of e-invoices. The introduction of e-invoices is a good example of horizontal integration within e-Business and is thus of interest to both large and small enterprises and the public sector.

Due to potentially large fiscal impacts of the e-invoice implementation, the Ministry of Economy initiated the pilot project Electronic Invoice, which will be presented during the conference. The best example for such use of the e-invoice is Denmark where, due to its compulsory implementation in the public sector and mass use, reductions in expenses exceeding 100 million Euros annually have been achieved within a short period of time.

The implementation of e-invoices enables the automatic preparation of electronic orders for the payment of purchased goods or services. Unlike cash payments, all e-payment methods are suitable for monitoring of money flow by authorized organizations, which consequently contributes to gray economy reductions.

The most common forms of electronic payments are the use of credit and debit cards for payments over the Internet, Internet banking, mobile payment, intermediary services and electronic money.

The Croatian Banking Association prepared the structure of the e-payment document in XML format.

The first document in a series of electronic documents used in the procurement procedure is the electronic order form using the e-catalogue in this process. It is an essential element for implementing the dynamic purchasing system. The standards for e-order forms and electronic invoices are logically interconnected and the e-invoice assumes a large amount of information from the e-order form, when available.

The organization GS1 Croatia has initiated the e-business project eCROKAT, which allows the maintenance of the a Central catalogue of commercial products and the possibility to be synchronized with similar catalogues worldwide, and eCRODOK which allows the preparation and exchange of electronic messages in line with the international GS1 BMS (Business Message Standards).

ICT technologies have already become a fundamental operational tool of companies. In order to allow for the use of their full potential, it is necessary that the management at all levels possesses the necessary knowledge and skills for their efficient and effective application.

Ladies and Gentleman,

I am confident that this conference will contribute to knowledge of the level of implementation of e-Business in the region, as well as exchange of experiences between member countries of IT STAR, the creation of conditions for removal of still present problems in deploying e-Business, and connecting professionals who deal with these issues with the aim of faster and more efficient application of e-Business in the region. I wish all participants a successful work, our guests from abroad welcome and pleasant stay in Zagreb and Croatia. ■

---

eBusiness in Front of a Period of Crisis and of New Technological Opportunities

by Bruno Lamborghini
Chairman of EITO and vice-president of AICA

The deep economic depression in which the world entered in the second half 2007 dramatically worsened during 2008 and 2009. Now in 2010, the expected recovery shows still weak and uncertain signals in Europe and in the US.

In 2009 the European Monetary Union area showed a GDP decline of minus 4% while in 2010 it shows a recovery of 1.8% followed however by an expected slowdown to 1.1% in 2011.

Year 2009 has shown at world level for the first time since many decades zero growth in GDP followed in 2010 by a positive 5% due to India, China and other Asian areas but still a prosecution of economic uncertainties in US and Europe.

International trade has shown in 2009 a decline of 11%, hopefully recovering by 13% in 2010 and by 7% in 2011. Unemployment in 2009 and 2010 climbed in the US and in Europe to 10%.

According to the EITO estimates, the IT markets in Europe have moved from a growth rate of 3% in 2008 to a decline of 5.4% in 2009 followed by zero recovery in 2010 (0.2%) and an expected + 3.5% in 2011 (quick rebound is expected in France and Germany by around + 4%).

Also in the US the IT market shows in 2010 a limited recovery of 0.8%, very similar to the European trend, while India and China are moving at double digit speed (+11%).

In 2009 the European telecommunication market has shown a decrease of 2.0%, expected to stabilize around zero growth in 2010 and a limited recovery to 1.4% in 2011, taking into account saturation in mobile phones and still slow contribution of mobile Internet services.

In the US the telecommunication market is moving at a 1.6% rate in 2010, China at an 8% rate and India at a 15% growth.

The digital consumer electronics market in Europe has shown a decrease in 2009 of minus 7%, while it is expected to increase in 2010 due to the diffusion of digital TV, videogames and new digital devices.

So, the emerging markets are the drivers while there are structural changes in the telecommunication markets due to the increasing role of wireless mobile services versus fixed lines services, with booming of mobile Internet access.

Broadband lines both fixed and wireless are the name of the game with an extraordinary development of video services, like Youtube, which require huge amount of transmission band in order to channel billions of bits moving all over the planet.

Facebook has reached 500 million users. Ipod is moving millions of music and video files. Ipad success and all new tablets require enormous amount of band to transmit real-time films and TV.

At world level, the threshold of 5 billion mobile phone subscribers will be exceeded by the end of 2010, doubling in 5 years.

800 million are already using fast UMTS standard with annual increase of around 40%.

In Europe mobile phone subscribers are expected to raise to 650 million by yearend – a third of them using UMTS technology, which enables access to Internet and video (Germany has 110 million mobile subscriptions).

China is dramatically growing, now with 850 million mobile phones, expected to reach 1 billion end of next year. India has 680 million cell phones, more than the amount of present European users and more than doubling the US users.

Internet users are close to 2 billion worldwide and the number of Internet accesses will dramatically grow due to the diffusion of mobile broadband access on one side and on the other side due to the unpredictable diffusion of cell phone cards in all kinds of objects, sensors, non-human functions which will determine in few years billions of non-human internet accesses.

Up to now, digital technology and web development have favored new social networks and web TV mainly for entertainment purposes, but now the same technologies and services are moving to business scopes and applications.

Digital technology is changing the way we operate favoring new man-machine-man relations, increasing online paperless operations, introducing web services into the organizations, speeding up all decision processes, outsourcing internal data processing systems through cloud computing networks.

Mobile devices like Iphone or Ipad are entering into business applications; the number of apps developed by users and distributors is growing every day, more also for business applications.

New e-Business services and applications are driven by new digital technologies, being developed for the entertainment market, but now being applied in the business market.

Mobile eBusiness services are the most evident example of the convergence between mobile devices for entertainment with new business applications.

Real drivers are new social needs and requirements of change regarding jobs, work organization, sense of participation, knowledge sharing.

A concrete example of newly shared activities is Open software with thousands of software programs available free on the net, at the same time opening to new business initiatives around the world and revolutionising the whole software industry.

Web-based communities will move from entertainment and single initiatives to becoming part of change in all kinds of organizations, public and private, from business to public administrations.

In research labs the name of the game is Open Innovation based on sharing ideas and research results through the Web in various scientific communities.

eBusiness exploiting new web services will produce real changes in all organization forms, introducing social communities within the organizations and by this way amplifying the access to knowledge-sharing among all employees and dramatically improving decision processes, both inside the company and outside through new forms of web marketing and of new eco-communities including all stakeholders.

At the Catholic University in Milano I have organized a new course on Knowledge Management in the organizations based on the web, which intends to prepare new skills on knowledge management and have an impact on organizations.

Knowledge sharing is a major asset for an organization and it is the engine for innovation and competitiveness.

Traditional organization schemes based on top down processes are becoming every day more inadequate to compete in a complex global environment.

New successful organizations are based on dynamic structures favoring the exchange of ideas and knowledge among all people.

Positive change management and innovation is strengthening through effective participation and collaboration at all levels.

Only a bottom up approach by people close to market needs and customer requirements can permit to create an effective and constructive Business Intelligence system.

eBusiness systems have to provide the favorable infrastructure to permit the development of new organizations both at company level and at public administrations level.

Main areas in which new eBusiness trends are working are Business Intelligence, Security, Application Datawarehousing, Virtualization, Document Management, Cloud computing.

Business Intelligence is a central point for successful organizations, starting from Customer Intelligence, which is a very complex task, taking into consideration the enormous amount of data and information provided daily by web services, social networks, blogs, etc.

New forms of CRM can provide direct relations with customers and build intelligent databases in order to create personal relationships with customers.

Security is an absolute need given the growing interconnections of networks and the increasing risks of data hacking and the absolute requirement of data protection, considering also the widening of network access through mobile devices.

Application Datawarehousing is becoming a relevant area due to the development of an increasing number of apps entering eBusiness systems from inside and from outside suppliers like dealers, partners and also customers.

Datawarehousing and Data Mining have to provide selective certification and access right for any kind of apps.

Virtualization and Document Management have a fundamental role to move documents from paper to bits in order to speed up change in document flows and all kind of procedures.

Today these processes can really change any kind of activities in Public Administrations and by this way improve effectiveness, productivity, cost saving and quality of services.

Cloud computing using networks of million of servers today can provide an unbelievable amount of computing intelligence, reducing cost but mainly standardizing and linking applications, software systems and creating new forms of interconnections.

Cloud computing should not be considered as decentralization of data services but as a new extraordinary way for innovative eBusiness systems.

We are in the middle of a revolutionary change in eBusiness which will provide new forms of interactive networks relations with mobile applications transforming the office environment into a mobile office context, and with on-line transactions, on-line banking, on-line entertainment.

The real issue facing the change is not technology by availability of e-skills, of people having competences in eBusiness technologies, but also in new organizations and market requirements.

E-skills represent the real strategic asset for strengthening Europe as a real Knowledge Society, having the forces to participate and compete successfully in the new global environment.

New world areas, like China, India, Vietnam, Brazil, but also other Asian countries are taking advantage of the digital scenario and investing in e-skills education, successfully following the new path. Hundreds of thousands e-engineers come out every year from Chinese and Indian universities and will drive future industrial evolution. In India, the number of new ICT engineers every year exceeds the total of all existing Italian ICT engineers.

The major concern for the future of Europe is on one side to increase investment in research and innovation in ICT and its applications but on the other side the most critical target is to increase investment in new e-skills, new competences, new forms of education for the digital change.

There is a strong need to give to policy-makers in Europe the right requests to speed up the change in education, to increase investment of the universities for preparing the right skills, we need in Europe to prepare every year hundreds of thousands engineers, in physics, in mathematics, in informatics, in nanotech, in biotech, starting from the secondary schools.

We need to certify at European level professional preparation in ICT as it is done through the EUCIP certification, which can permit a harmonized and dynamic approach to the preparation of new e-skills.

In AICA we feel very strongly this need to proceed rapidly in closing the skill gap.

AICA through its participation in international institutions like IFIP and CEPIS and also as founding member of IT STAR is responsible for development and management in Italy of the European Informatics certification such as the European Computer Driving License (ECDL) with more than 1.6 million registered candidates, 2700 test centers and 100.000 tests performed monthly.

I know that many other organizations are doing the same in order not to lose this unique and fundamental train driven by the new digital scenario, which in my view is the only way to avoid to be permanently blocked into a depressive economic context while on the contrary it is the way to speed up the re-launch of economic and social development and new jobs in our countries and in Europe as a whole.

I want to conclude saying that we have in front of us extraordinary opportunities driven by digital technologies. To take advantage of it we have to take care of the basic asset, people, e-skills, human competence and intelligence through largely investing in education.

We talk a lot in Europe about the need to invest in broadband infrastructures reaching all areas, but we don't talk enough about the need to invest more on e-skills, on e-brains. As a slogan I say, Broadband yes but in parallel also Brainband. Otherwise we will have broadband highways but very few digital vehicles on them and no social and economic advancement. ■

Zagreb Declaration

***We**, the participants of the 5th IT STAR Workshop on Electronic Business, held on 12 November 2010 in Zagreb, Croatia,*

***Acknowledging** the dominant role of ICT in raising economic competitiveness,*

***Realizing** the growth of e-Business strategies and applications,*

***Recognizing** that successful e-Business practices are greatly dependent on the general e-preparedness of the people,*

***Appreciating** IT STAR's continuous efforts in promoting an open exchange of views on the main Information Society issues,*

***Have agreed to the following**:*

1. The e-Business paradigm is based on the exploitation of informatics and Internet technologies to energize key business processes. The availability of ICT in a company by itself, however, is not sufficient for a successful e-business practice. As stressed in the conference proceedings, there are many social, organizational, legislative and security aspects that form the backbone of e-Business.

2. The Declarations from the last 3 IT STAR conferences -- Genzano di Roma - Italy (2007). Godollo - Hungary (2008), and Rome - Italy (2009) -- highlight the importance of e-Skills and it is also within that context that this conference reiterates its support to the e-Skills qualification projects and offerings that were presented in Zagreb.

3. E-Business skills are of crucial importance and should be seen against the rapid penetration of web 2.0 approaches transforming traditional top-down organizational schemes into dynamic structures based on collaboration and free exchange of knowledge. Therefore, it is of utmost importance to develop the digital competences of both suppliers and users.

4. The majority of IT STAR members are professional ICT societies from the new EU member states and we would welcome the participation of EC experts and representatives in future IT STAR conferences to ensure a wider European exchange of experience and best practices within the Europe 2020 plan of action. Furthermore, we recommend that IT STAR's member societies have a higher priority in EU consultations and in co-funding of their projects on e-skills certification and e-business.

5. We commend the efforts of the eSEE initiative and its members in Southeastern Europe for the significant progress that they have made in establishing legal and institutional framework and infrastructure for information society development. As these countries work towards EU membership, IT STAR would be glad to facilitate their involvement, cooperation and exchange of experience within the larger region of Central, Eastern and Southern Europe.

6. E-Business strongly depends on users' trust and confidence and it is a duty of the EC and the EU member states' governments to further develop protection mechanisms. We commend the work done so far on e-Signature and urge that it is continued so as to provide widely accepted standards.

7. We invite IT STAR member societies to provide further visibility to this statement and the conference proceedings within their constituencies and countries.

Institute of Prospective Technological Studies

ICT in the Automotive Industry: An IPTS Study

by Marc Bogdanowicz

The JRC-IPTS[1] is currently issuing a report[2] about the Automotive sector, the trends affecting this sector and the role ICT -- Hardware and Software -- plays in the current and future transformation affecting it.

The following lines are a brief introduction to this report:

The European automotive industry has done well in the last 40 years despite growing competition from an increasing global market place. In the next two decades, however, the automotive industry in key developed regions such as Europe, North America and Japan, will see increasing competition from low-cost countries that are now building a formidable automotive industry production and consumption market. Similar events have happened in the past in other industries, ranging from shipbuilding and steel production to the PC and consumer electronics industries - at least in the hardware production segments.

This report aims to answer the key question: how can the European automotive industry retain its strong current position and prosper in an increasingly competitive global automotive industry? The short answer is relatively simple: ICT will play a crucial role and the EU must retain its leadership in most automotive ICT segments. The ICT software segment is especially important because it is based on knowledge and innovation, which in theory could be developed in any geographic region.

Eventually, the European automotive industry is strong in automotive ICT products. The key to strong European suppliers is that most ICT products first appear in luxury vehicles. Europe has three major luxury automotive manufacturers, BMW, Mercedes-Benz and Audi. The suppliers to these luxury brands have needed to be innovative in their ICT product development, and many have become world leaders in the automotive ICT segments. European volume automotive manufacturers have benefited from luxury car innovations, and have migrated leading edge ICT to the mid-range market segments as prices have declined with volume production and technology advances. ICT business from non-EU automotive manufacturers has typically followed many of the developments of the leading brands within the EU ICT supplier sector.

Second, European automotive suppliers have not typically been captive to any automotive manufacturer and this has made them very competitive and business savvy compared to the key suppliers in USA and Japan. For example, Delphi was a GM subsidiary until 1999; however the transition to becoming an independent entity created major problems for this company and it has just come out of a four-year bankruptcy procedure. Similarly, Visteon was a Ford subsidiary until 2000 and has also had major problems in becoming an independent company. Visteon filed for bankruptcy reorganization in May 2009. Denso, however, was a captive supplier to Toyota in Japan, but has been much more profitable as an independent automotive supplier company than either Delphi or Visteon.

The EU has two ICT suppliers that are leaders in multiple ICT segments and are overall global automotive ICT leaders: Bosch and Continental. Several smaller EU suppliers are focused on being leaders in selected ICT segments: e.g. Autoliv, Hella and Valeo. Europe has many small but highly influential automotive software companies. Most of these were founded as suppliers to specific automotive manufacturers, however many have expanded and now supply to a range of EU and non-EU automotive manufacturers. There are no dominant embedded software suppliers in Europe or any other regions; the market is characterized by many small companies that focus on selected software segments and/or specific automotive manufacturers. The last part of the ICT supplier value chain is the range of semiconductor companies that provide microcomputer chips, sensors and other electronic components to the automotive sector. The EU has two of the top companies, Infineon and ST Microelectronics, which supply a wide range of automotive semiconductor components. NXP and other semiconductor companies are strong in certain component segments.

All of the above shows that the EU automotive industry is well positioned in ICT embedded systems, and in particular in ICT embedded software. This leadership position can be extended for a decade or two, but requires considerable investments by all players, including public authorities. For the authors, the key conclusions concerning the status and future of embedded software in the European automotive industry are the following:

- EU automotive sales are declining as a share of the world total, with most of the future growth expected to come from non-EU regions. This means the EU-based automotive manufacturers, their EU-based Tier 1, semiconductor and software suppliers must expand outside the EU in order to maintain or grow their worldwide market share.
- The share of ICT in the automotive market is difficult to estimate, however it is a growing portion of the value of a vehicle when it is sold. In this study, the authors have estimated that, while ICT value per car depends greatly on what optional electronics are purchased by consumers, it already represents some 10% to 15%

1 IPTS is one of the seven research institutes of the European Commission's Joint Research Centre (JRC).

2 This report, available at http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=3780, is one out of a series. More about this project at: http://is.jrc.ec.europa.eu/pages/ISG/COMPLETE.html.

of the vehicles purchase price (with minimal optional equipment) and up to 30% of the purchase price (with the purchase of all optional electronics), depending on the type of vehicle.

- The EU leads in embedded software standards due to its role in the formation of the AUTOSAR consortium. AUTOSAR is now a worldwide software standard with EU companies in the best position to benefit from the deployment of the standards that are now underway.
- The EU is in the strongest position in terms of the supply of Powertrain embedded software. However, there is a risk, as Electric Vehicles (EV) begin to replace diesel and gasoline vehicles, that EU companies will not have invested enough to be the leaders in Electric Vehicle Powertrain software. EV R&D is needed soon to protect the EU's lead in future Powertrain software.
- GENIVI is another embedded software standard effort, underway in the automotive infotainment system domain. The EU is well represented in the GENIVI consortium, but shares leadership with USA-based companies.
- The EU is behind the USA in connected car applications and software. The impact of eCall regulations has the potential to accelerate EU connected car deployment and allow the EU to catch up in the next decade to 2020.
- To retain leadership in embedded software in the future, the EU automotive industry must invest in emerging and future technologies with software-intensive segments. There are at least three such segments: Advanced Driver Assist systems (ADAS), Vehicle-to-vehicle/Vehicle to- Infrastructure communication (V2X) and Autonomous driving.

When considering the above elements and the detailed analysis presented in the report (on the technological aspects and also those related to the robust and mature industrial context), a striking observation in terms of policy is the absence of a coordinated 'one-stop-shopping' major automotive public agenda at European level. The Smart or Green Car initiatives are claimed to be high on the official agendas of the Commission and of the Member States but they do not seem to deliver any integrated or strong momentum towards a coordinated and efficient action by the industry, public authorities, citizens and probably academia to ensure the rapid development and implementation of such agendas. The analysis indicates that only action of this type will allow Europe to reap the benefits of the next generation cars, by growing an even stronger automotive sector at OEM and supplier levels, offering the consumer the services and products the market demands and meeting the societal challenges that Europe is confronting in terms of economic growth, employment, environment or well-being. ■

E- Business Skills

Along with practitioner and end-user eSkills, the EU recognizes another area of eSkills, namely in e-Business (also referred to as e-Leadership). The terminology, definitions and scope of this area of e-Skills is still lacking concreteness, as debated by the participants in the CEN WS on ICT Skills plenary on 8 December in Brussels, yet no one disputes the paramount importance of eSkills and ICT as a key driver of competitiveness and economic growth.

The e-Skills topic was central to the debate during the recent IT STAR conference on E-Business in Zagreb. The Keynote paper by the EITO president *(see p.4)* set the tone for considering e-Skills as a real strategic asset for Europe. In this vein, there were further contributions by national representatives and representatives of the CEN WS on ICT Skills, AICA and CompTIA. An abridged version of the presentation made by Mr. Dudley Dolan (Ireland, Chairman of the CEN WS on ICT Skills) was published in Vol.8, no.3, Autumn 2010 of this newsletter.

We now offer below another view on this important topic.

The Editor

Competences for an effective e-Business

by Paolo Schgör
ECDL & EUCIP Certifications Manager, AICA

The so-called e-business revolution started more than a decade ago, and in fact it is now permeating our lives. An increasing number of people is involved in C2C (e.g. peer to peer auctions), B2C (e.g. e-commerce) and B2B transactions, when at work.

The joke I heard some years ago from an Estonian colleague is turning into reality. He said, *OK, I'm allowed to access the Internet from here: human rights are granted!*

What hinders e-business yet?

Recently the European Commission released a document titled "Europe's Digital Competitiveness Report 2010", which contains the following sentences:

"Europe 2020, the new economic strategy for Europe, identifies Information and Communication Technology (ICT) as

one of the key drivers for the smart, sustainable growth necessary to lead Europe out of the crisis."

.

"In 2009, the European digital economy continued to grow in size and scope, with 60% of the EU population using the internet on a regular basis. Broadband is available to 94% of the EU population, and is accessed by 56% of households and 83% of enterprises."

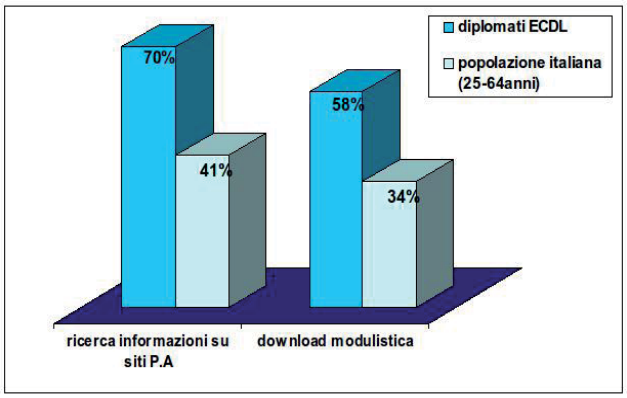
Technology is continuously changing, but there's no doubt about the current availability of very effective ICT products.

Although much depends on definitions (i.e. how broad a "broadband" is), connectivity does not seem to be the present issue, either.

Availability of on-line services, both from governments and from enterprises, is more questionable. There's obviously a time delay between the invention of a new technology, its practical availability, its real take-up by organizations and its final usage.

However, research done by AICA and SDA Bocconi on the "Cost of IT Ignorance" shows that the lack of **self**-confidence prevents most consumers from using e-commerce and e-government services.

The chart below shows the different approach to the usage of e-government services between two sample groups of Italian citizens: the first sample (darker color) includes only people who got the ECDL Core certification, the second is a general sample of citizens (of which only a minor fraction are ECDL certified); a relatively simple training and certification program causes a very significant increase in propensity to use on-line services.



In simple information queries the usage increases from 41% to 70%, and a similar increase can be seen for more complex functions.

In summary, consumer skills and professional skills (or competences) are definitely the most serious issue.

The same above-mentioned report comes to the following conclusions:

"Age and education are the two main factors influencing the way people use internet services. Their level of education significantly affects their chances of using most online services, but especially the advanced services. Lack of education and ***skills*** *are the primary sources of disadvantage among groups at risk of exclusion from the digital society, though equipment costs also play a role."*

"ICT take-up by European businesses is increasing and Europe is beginning to see signs of efficiency gains in all sectors. Nevertheless, the latest academic research also shows that in order to make the most of the productivity potential of ICT, investment in ICT on its own is not sufficient. Complementary organizational changes, in particular involving management practices and decentralization, as well as ***skills*** *also matter. US firms have been more successful in implementing organizational changes, but have also invested more in ICT and* ***skills.****"*

The cost of ICT incompetence

In addition to a lack of self-confidence, many potential users are reluctant to use on-line services due to a lack of confidence in the robustness and reliability of "the system".

And in fact, current IT systems are so complex that it is somewhat surprising when they actually work in a seamless way; a transaction like booking a flight requires a number of favorable conditions to take place at the same time: your client device must be OK (hardware, power supply, system software, internet browser, security software, etc.), your network connection must be OK (connection credit, physical possibility to access a functioning network gateway server and from there to the service host, with aligned communication protocols assuring adequate security, etc.), the airline booking server must be OK (hardware, power supply, system software, firewall, web server, application software, etc.); this is just the start, because then you have to be lucky with the availability of seats on the desired flight, you must be able to pay (with other online services involved on top of all previous) etc.

We listed above ca. 20 conditions: if each single condition is met 99%, the probability of a successful transaction is less than 82%, meaning that you'll experience some problems almost once every 5 times in average.

The above story is just a simplified description of a real transaction, which in fact would require even more IT systems to work seamlessly; this means that each single component (including you devices, which can not be controlled by the service providers!) should be almost perfect not to cause a poor performance of the whole system.

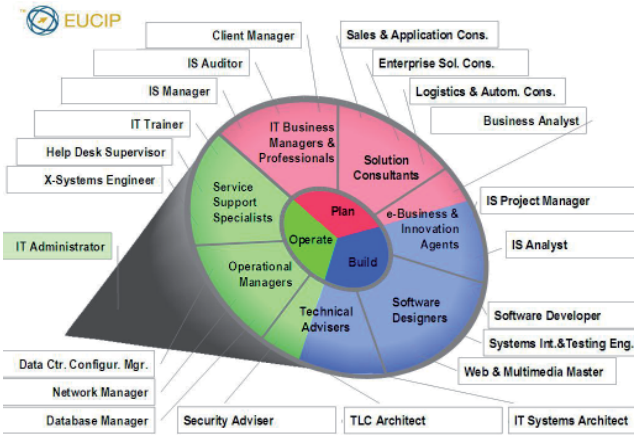
Unfortunately, systems available today are still far from such perfection, and the effect is a lack of total quality in the on-line transaction.

Moreover, e-business is changing some traditional market rules. As a consequence of the fall of many information barriers, customers need to be smarter, to know what to ask for free (information) and what to pay for (real service).

Now, coming to ICT professional competences, every organization needs to have strong in-house technical competences even when they outsource ICT services; otherwise they would be forced to rely on consulting firms for any strategic decision and any tactical choice.

The key issue is to find suitable application experts (also known as "hybrid professionals" or "dual thinkers"), people who understand the organization, its processes and its business needs, but at the same time understand the value of ICT, both in terms of current status and in terms of potential, considering new opportunities that innovation can offer.

The importance of both technology skills and application skills, is somehow confirmed by the set of EUCIP competence profiles (see figure), describing a 50-50 mix between "pure techies", i.e. ICT experts, and "hybrid professionals", i.e. experts in the business application of ICT.



In conclusion, there's a complex relationship between business and technology, and ICT can affect the way business is done: in particular, the traditional supply chain has already been replaced by a sort of "supply mesh"; all industries are affected, but the speed of change is higher for services that can be provided through digital devices.

After evaluating in the past years the "cost of ICT ignorance", i.e. the economic impact of lacking users skills, AICA is now starting to explore a new model to evaluate the "cost of ICT incompetence", including both the lack of user skills and the lack of competence from ICT professionals that causes insufficient quality in ICT systems.

The problem is tremendously complex, but probably a simplified model can still provide some interesting results; on the other hand, the availability of EUCIP, a complete "dictionary" of ICT and application competences, provides a sound basis to this new endeavor. ■

MultiCulti

Pécs – The Borderless City

by Dorothy Hayden

Soon after the Conference on e-Business in Zagreb (article on this city was published in the MultiCulti column in Vol.8, no 3, Autumn 2010) I had another great opportunity to experience the culture of the Region, this time in Pécs, the European Capital of Culture for 2010.

The occasion was a conference organized by the John von Neumann Computer Society at the University of Pécs, the oldest in the country, founded in 1367 by King Louis the Great.

With some 160,000 inhabitants Pécs is the fifth largest city of Hungary and the administrative and economic center of the county of Baranya. Located close to the border with Croatia on the slopes of the Mecsek mountains it has no major manufacturing activity to boast of (the biggest employer is an assembly plant for electronic devices), its economy is rather oriented towards wine production, forestry, tourism, the related activities of being a university city (with over 30,000 students, many coming from abroad and some 2,000 teaching and research staff it enjoys an international flair) and culture as a whole.

Cathedral

Pécs is a multicultural city and a melting pot of different cultures throughout a span of 2 millennia. The Romans founded here the city of Sopianae at the beginning of the 2nd century, in an area largely populated by Celts and Pannoni tribes. The pagan Roman customs opened up to Christianity and by the 4th century A.D. the town established itself as an important early Christian center. The early Christian necropolis from that time is on UNESCO's World Heritage List. The Pécs episcopate was founded in 1009 by King Steven I. Under bishop Janus Pannonius, the town grew as a leading cultural and arts center in Hungary.

Taxes were collected by the bishop rather than the King and this to a great extent determined the city's orientation towards art and culture.

The Ottoman occupation lasted 150 years, until 1686, and a reminder of that time is the beautiful mosque of Pasha

Gazi Kasim [*see photo below*] on the central square (now Catholic church). The Ottoman rule was largely peaceful but with battles to drive the Turks away from the town it was ravaged and very little from Medieval Pécs remained. The Habsburgs initiated a special resettlement program with incentives for Hungarians, Croatians and Swabians to settle in the region.

As European Capital of Culture in 2010 Pécs has much to offer. History and modern times blend nicely in the beautiful architecture of the inner city and its renewed public spaces, cultural centers and many restaurants and guesthouses with gastronomic delights.

It is the birthplace of Victor Vasarely, a famous abstract painter who emigrated to Paris and worked for Renault (and developed the Renault logo). Among his works displayed at the local Museum are his famous "Zebras".

If interested in porcelain, next to Herend, you would probably be aware of another well-known Hungarian brand – Zsolnay.

The Zsolnay family of Pécs established a famous porcelain factory here, which is still in operation.

Bust of Empress Elizabeth (Sisi) by Zsolnay at univ. Aula

My recommendation for your stay

Hotels: Either a modern, brand-new stylish hotel 10 min walk from the old city center http://www.corsohotel.hu or, if you prefer, a nicely renovated, *fin de siècle* hotel in the historical center www.danubiushotels.com/palatinus - both real bargains.

Visits: A good half an hour drive to the south heading towards the wine road following the line of the Villány range of hills you will find many wine cellars, which offer wining and dining with a wide variety of wine tasting, wine competitions etc. If you like red wine you might choose to taste Kadarka and Kekfrankos and to go along there is a wide variety of choices from the Hungarian cuisine including game, goose, duck and much more.

For more on Pécs and its surroundings you could check http://visitpecs.hu/htmls/mainpage.html. ■

Member Society News

Hungary

The John von Neumann Computer Society (NJSZT) in cooperation with SEFBIS (GIKOF) - the Scientific and Educational Forum on Business Information Systems within NJSZT - held their 3rd ISIBIS'10 (7th OGIK'10) Conference from 25 to 27 November at the University of Pécs, Hungary.

There were some 40 presentations, a poster session, 2 Roundtable discussions and an exhibition within the conference format. Prof. Gabor Peceli, President of NJSZT and Rector of the University of Technology and Economics in Budapest made the opening address. During the opening session, an invited presentation on "Information Society Issues in Central, Eastern and Southern Europe: The IT STAR Experience" was delivered by the IT STAR Chief Executive.

More information about the conference is available at http://isbis2010.ktk.pte.hu/

Fm left: M. Raffai, Conference PC Chair, P. Dobay, OC Chair, G. Chroust and spouse, Kepler Univ, Linz (AT), P. Nedkov (IT STAR)

Serbia

JISA to host next IT STAR event in Belgrade

The Union of ICT societies in Serbia will host IT STAR's 6th conference and Business meeting in Belgrade during the autumn of 2011. Given the success of the conference on e-Business in Croatia, IT STAR and hosts will consider having the Belgrade event also focusing on the e-Business agenda.

Diskobolos 2010

Diskobolos is a JISA organized competition award honoring achievement in ICT applications for business solutions. The international jury composed of presidents of ICT associations, representatives of chambers of commerce and ICT experts, will select the winners in the different categories. The Awards ceremony will take place on 21 December 2010 at the Continental Hotel - Belgrade.

Slovenia

SSI "INFORMATIKA" has kindly extended an invitation to IT STAR to host IT STAR's 10th Anniversary celebration in spring'2011, in Portoroz, Slovenia.

The festivity will be held during SSI's conference "Days of Slovenian Informatics" in this lovely Adriatic resort, which is the birthplace of IT STAR. ■

IT STAR Coordinator Succession

Giulio Occhini served as the 3rd IT STAR Coordinator, for the period 2006-2010. During this period, IT STAR grew as a representative institution of ICT activities in Central, Eastern and Southern Europe. The IT STAR series of conferences was established! The IT STAR publications became a leading source of information – regionally and internationally.

Giulio fostered the establishment of a viable network between IT STAR's member societies – something, which will be further assessed and appreciated in future.

In recognition of Mr. Occhini's contributions to IT STAR and this Newsletter, he is welcomed as honorary member to the Newsletter's Advisory Board.

Next IT STAR Coordinator (2010 -)

Igor Privara

During IT STAR's Business Meeting on 13 November 2010 in Zagreb, Mr. Igor Privara (Slovakia) was chosen to succeed Mr. Giulio Occhini (Italy) as the next IT STAR Coordinator.

Igor is well-known to the ICT community in the region and internationally: he served in various national and international capacities, including as Director of INFOSTAT – the Institute of Informatics and Statistics in Slovakia, as President of the Slovakian Society for Computer Science, as representative to IFIP, CEPIS and IT STAR, and as organizer of IT STAR's WS on R&D in ICT, in 2006 in Bratislava.

Says Mr. Privara, "I look forward to assist the development of IT STAR's series of conferences, which prove to be highly successful. I also intend to support the development of activities, which are typical for the Region and bind our societies".

Igor Privara is a world-class chess player, so look out for his future moves!

In Memoriam – Jean-Claude Laprie

Our hearts go out to Jean-Claude's family and friends on his early passing. There will no doubt be many obituaries and fine words – we share them all!

Our remembrances of Jean-Claude are of a great man, as we knew him – director of the largest lab in CNRS, the French national research center of excellence, vice-president of IFIP, TC 10 Chair, and a great French citizen!

He had a busy schedule, we knew that, but when it came to the "important matters" he was always there. Next to being a leading IT professional, he was an openhearted person and a connoisseur in the best of French tradition.

Fm left: P. Nedkov, W. Stucky (CEPIS President, DE) and J.-C. Laprie during Plamen Nedkov's 20th Anniversary celebration with IFIP – in Montreal, CA, during IFIP GA and WCC' 2002

We started preparing the World Computer Congress'04 in Toulouse together and during my first visit he got us in a helicopter to "review" the Region, then ensured that we visit Airbus Industrie -- at that time a "no go" for Americans and East Europeans -- and later treated us to the best restaurant in Toulouse – the Jean-Claude "savoir-vivre"!

I had the privilege to know his family and his institute …

Jean-Claude and I kept in close contact after my IFIP days and he contributed to this Newsletter.

We lost a friend and supporter.

The Editor

SNAPSHOT

REGIONAL ICT ASSOCIATION IN CENTRAL, EASTERN & SOUTHERN EUROPE

Type of organization

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

Date and place of establishment

18 April **2001**, Portoroz, Slovenia

Membership

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

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

Statutes

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

Mission

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

Governance

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

2010 Zagreb, **Croatia** (November)
2009 Rome, **Italy** (November)
2008 Godollo, **Hungary** (November)
2007 Genzano di Roma, **Italy** (May)
Timisoara, **Romania** (October)
2006 Ljubljana, **Slovenia** (May)
Bratislava, **Slovakia** (November)
2005 Herceg Novi, **Serbia & Montenegro** (June)
Vienna, **Austria** (November)
2004 Chioggia, **Italy** (May)
Prague, **the Czech Republic** (October)
2003 Opatija, **Croatia** (June)
Budapest, **Hungary** (October)
2002 Portoroz, **Slovenia** (April)
Bratislava, **Slovakia** (November)
2001 Portoroz, **Slovenia** (April)
Como, **Italy** (September)

Coordinators

2010 – Igor Privara
2006 – 2010 Giulio Occhini
2003 – 2006 Niko Schlamberger
2001 – 2003 Plamen Nedkov
(currently Chief Executive)

Major Activities

- 5th IT STAR WS and publication on Electronic Business - http://starbus.org/ws5/ws5.htm
- 4th IT STAR WS and publication on Skills Education and Certification - http://starbus.org/ws4/ws4.htm
- 3rd IT STAR WS and publication on National Information Society Experiences – NISE 08 http://www.starbus.org/ws3/ws3.htm
- 2nd IT STAR WS and publication on Universities and the ICT Industry
- http://www.starbus.org/r_d_ws2/r_d_ws2.htm
- 1st IT STAR WS and publication on R&D in ICT http://www.starbus.org/r_d_ws1/r_d_ws1.htm
- IT Professional Pool Database (in progress)
- Workshop and publication on National Experiences related to the EU's 5th and 6th FP http://www.starbus.org/download/supplement.pdf
- Joint IT STAR – FISTERA Workshop on ICT and the Eastern European Dimension http://fistera.jrc.es/pages/roadshows/prague%2004/FINAL%20REPOR-Trevised.pdf
- Support to Member Society initiatives and events

Periodicals

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

Web-site

www.itstar.eu ■

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 IT Association– CITA
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

The Cyprus Computer Society – CCS
P.O.Box 27038
1641 NICOSIA, Cyprus
Tel. +357 22460680 Fax +357 22767349
e-mail: info@ccs.org.cy
www.ccs.org.cy

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 210,
Bathori u. 16
H-1364 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
Geležinio Vilko g. 12-113
LT-01112 VILNIUS, Lithuania
Tel. +370 2 62 05 36
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
ul. Puławska 39/4
02-508 WARSZAWA, Poland
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

JISA Union of ICT Societies
Zmaj Jovina 4
11000 BELGRADE, Serbia
Tel.+ 381 11 2620374, 2632996Fax + 381 11 2626576
e- mail: dukic@jisa.rs
www.jisa.rs

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