



## Star Fall

**23** June was an EU *Starfall*: the Brits were influential in all policy spheres, including informatics ... so what are the consequences?

- Having the continent cut-off across the Channel, to use a favorite phrase of English forecasters?
- Britain hanging on via specific arrangements, or through its territories in southern Europe – a prospect making the BCS eligible to join IT STAR 😊
- Recalling English, and leaving the EC with a mixture of French and German to struggle along? - See p. 2.

On the backdrop of such uncertainties, the Fall Issue offers clear directions with respect to ICT developments, policies, concrete projects and ICT skills.

We are pleased to have the contributions of *Marc Bogdanowicz*, EC-JRC Digital Economy Unit - Seville, *Martin Przewloka*, GFFT Technologies – Germany, *Balint Molnar*, Lorand Eotvos University of Budapest, *Claudio Cilli*, University of Rome “La Sapienza”, *Veronica Salsano*, UNINFO and CEN/TC 428 “Digital competences and ICT Professionalism”, *Roberto Bellini*, AICA, and *Lyndsay Turley*, (ISC)<sup>2</sup> on issues related to the forthcoming IT STAR 10th WS on IT Security, 28 October 2016 in Milan, Italy.

The Issue revisits the Olympiads in Informatics, in which Central and Eastern Europe has a wealth of experience to share with the rest of the EU.

Join us for the Journey,  
*Plamen Nedkov*

## IT STAR representatives

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

## Contents

Joke of the Issue .....	2
Rethinking ICT Innovation Policies .....	3
10 <sup>th</sup> IT STAR WS – Advanced Program .....	4
Speakers .....	5
Successful digital transformation of mature SME businesses.....	6
IT Security in Hungarian Public Administration.....	7
Defending our Privacy .....	7
Standardization of Knowledge and Skills for IT Security .....	9
IT Security Professionalism with e-CF <sub>plus</sub> .....	10
Changing Landscape: Cyber-security & ICT Practice .....	12
Olympiads in Informatics revisited.....	12
Member Society News & Events .....	14
IT STAR Snapshot .....	15
Member Societies .....	16

## Editor

P. Nedkov, Halsriegelstraße 55  
A-2500 Baden, Austria  
e-mail: [info@starbus.org](mailto:info@starbus.org), web-site: [nl.starbus.org](http://nl.starbus.org)

## Joke of the Issue

### Euro-Englisch

The European Commission has started work on a project for an EU language -- Euro-Englisch or Deutsch-Frenglish -- to fill the gap in case Her Majesty's Government decides to withdraw English after Brexit.

- The soft "c" will be replaced by "s". Certainly this will make the sivil servants jump with joy. Simultaneously, the hard "c" will be replaced by "k". This shall klear up konfusion and keyboards can now have one less letter;
- There will be growing publik enthusiasm when the troublesome "ph" will be replaced by "f". It will reduse "fotograf" by 20%;
- Publik akseptanse of the new spelling can be expected to reach the stage where more komplikated changes are possible. Governments will enkourage the removal of double letters, which have always ben a deterrent to akurate speling. Also, al wil agre that the horrible mes of the silent "e" in the language is disgrasful, and they shall eliminat them;
- Peopl wil be reseptiv to lingwistik korektions such as replacing "th" with "z" and "w" with "v" (saving mor keyboard spas);
- ze unesenary "o" can be dropd from vords kontaining "ou", and similar changes vud of kors be aplid to ozer kombinations of leters.

Ve vil hav a reli sensibil riten styl. Zer vil be no mor trubls or difikultis and evrivun vil find it ezi to understand ech ozer and ze drem vil kum tru!! ■



### ADVISORY BOARD

Angel Alvarez, Spain  
Ashley Goldsworthy, Australia  
Augusto Casaca, Portugal  
Blagovest Sendov, Bulgaria  
Cene Bavec, Slovenia  
Dudley Dolan, Ireland  
Giorgio Ausiello, Italy  
Giulio Occhini, Italy  
Irena Lasiecka, Poland/USA  
John Atanasoff II, USA  
Marc Bogdanowicz, IPTS

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

### EDITORIAL POLICY

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

The stakeholders whose interests this newspaper is addressing are

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

Individual articles from the Newsletter may be re-printed, translated, and reproduced, except for denoted copyright protected material, provided that acknowledgement of the source is made. In all cases, please apply for permission to the Newsletter Editor.

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](mailto:info@starbus.org).

## Rethinking ICT Innovation Policies

Marc Bogdanowicz



*Marc Bogdanowicz is Project Leader, European Commission Joint Research Centre, Digital Economy Unit – Seville.*

In 2017-2019, the Digital Economy Unit of the JRC-IPTS<sup>1</sup> will pursue its efforts in understanding ICT Innovation and supporting European policies for ICT innovation. With the now finishing EURIPIDIS project, the Unit has produced over 20 reports<sup>2</sup> and has offered particular support to innovators in H2020 with the implementation of the Innovation Radar<sup>3</sup> (See IT Star Winter 2015/16 issue) or generated wide-ranging debate with its conference<sup>4</sup> on the role of patents in the European Digital Single Market.

Among its forthcoming publications, the EURIPIDIS project on ICT innovation will soon issue a new report authored by Professor Andrea Renda (CEPS and Duke University) provisionally titled: “Selecting and Designing European ICT Innovation Policies”<sup>5</sup> and confirming the importance of platforms, a phenomena already very high on the agenda of the Digital Single Market policy<sup>6</sup>.

This report is a very thorough effort identifying and describing the specificity of the ICT ecosystem and of its innovation processes. It analyses the peculiarities of Information and Communications Technologies, described as an ecosystem composed by various layers, from infrastructure to applications and content, and including end users. The report observes that innovation is becoming more open and collaborative in all sectors of the economy, but in the ICT ecosystem this trend is even more evident, thanks to fundamental features such as the digital nature

of information flows, the rapid drop of hardware costs, the end-to-end design of the Internet, and the modularity of ICT platforms and products.

These features in turn lead the ICT ecosystem to show various degrees of R&D intensity (greater at lower physical layers); the prevalence of system goods with platforms and complementors, mostly competing “for”, rather than “in” the markets; pervasive network effects coupled with relatively low entry barriers; short product life-cycles; and a high degree of co-evolution and co-dependency across and between layers. In this context, platforms often play the role of entrepreneurs, orchestrating cumulative innovation and competing with other platforms to capture the attention of end users.

The report claims that the observed features call for a dedicated approach by EU policymakers. In particular, EU innovation policy should focus on infrastructure, basic research and a wholly new set of skills, at the same time creating those mission-led platforms that are needed to ensure that innovation addresses most pressing societal challenges.

The nature of the ICT ecosystem determines also a growing need for flexible, adaptive regulation, and the adoption of new policy instruments. Even more importantly, horizontal and sector-specific EU policies should aim at creating an environment in which the need to protect user privacy does not hamper the development of new, welfare-enhancing business models.

This has potentially far-reaching consequences for established policy domains such as copyright and data protection law.

Finally, innovation policy and its related new instruments (the “innovation principle” and “innovation deals”, among others) should avoid hindering the entrance of new players by relying mostly on input from incumbents. ■

1 The reader should note that the JRC went through a full restructuring during summer 2016. Since, the IPTS has ceased its existence and has been replaced by the JRC Directorate B “Growth and Innovation”, still located in Sevilla with affiliated Units in Italy and Belgium, while the Information Society unit has been reorganised and renamed “Digital economy Unit”.

2 All currently available at: <http://is.jrc.ec.europa.eu/pages/ISG/EURIPIDIS/EURIPIDIS.index.html>

3 [https://ec.europa.eu/futurium/en/system/files/ged/9-innovation\\_radar-jrc-paper.pdf](https://ec.europa.eu/futurium/en/system/files/ged/9-innovation_radar-jrc-paper.pdf)

4 <https://ec.europa.eu/jrc/en/event/conference/european-digital-single-market-role-patents>

5 The report of Professor A.Renda should be soon available on: <https://ec.europa.eu/jrc/en/publications-list> and/or on the EURIPIDIS homepage.

6 Online Platforms and the Digital Single Market Opportunities and Challenges for Europe (COM(2016)288): <https://ec.europa.eu/digital-single-market/en/news/communication-online-platforms-and-digital-single-market-opportunities-and-challenges-europe>



# 10th IT STAR WS on IT Security

28 October 2016, Milan, Italy



Home

PROGRAM

Related IT STAR Activities

List of Topics

Search

## Content

- PROGRAM
- Related IT STAR Activities
- List of Topics

## Speakers

- Speakers

## Presentations, Papers and Publication

- Presentations, Papers and Publication

## PROGRAM

### PROGRAM

10th IT STAR Workshop on IT Security

28 October 2016,

Istituto dei Ciechi di Milano

Via Vivaio, 7 – 20122 Milano

Italy

### 09.00 Opening and Setting the Scene

IT Security – Overview of the Issues

Giuseppe Mastronardi, AICA President

### Topic I. EU and National Strategies for Information Security

- ENISA overview of EU IS strategies  
**Paulo Empadinhas**, EU Agency for Network and Information Security (ENISA)
- Information Security in Slovakia – from concepts to implementation,  
**Daniel Olejar**, Comenius University, Bratislava
- IT Security in Hungarian Public Administration  
*Models of Information Security Architecture in Practice*  
**Balint Molnar**, Eotvos Lorand University, Budapest
- Bulgarian ICT Security Challenges and Policy for Research Activities  
**Kiril Boyanov, Ivan Dimov, Blagovest Sendov**, Bulgarian Academy of Sciences

11.15 Coffee

### 11.30 Topic II. Business Strategies and Best Practices

- A New Method for Successful Digital Transformation for Mature SME Businesses  
**Martin Przewlaka**, GFFT Technologies, Germany
- Understanding Covert Channels of Communication  
**Claudio Cilli**, "La Sapienza" University, Rome
- Presentation (t.b.a.) – Italy

13.00 Lunch break

### 14.00 Topic III. Information Security Competences, Education and Research

- Standardization of Knowledge and Skills for IT Security  
**Veronica Salsano**, UNINFO, Italy & CEN/TC 428 „Digital competences and ICT Professionalism“
- e-CFplus and IT Security Competences  
**Roberto Bellini**, AICA
- Changing Landscape, Changing Roles: Understanding how Cyber-Security is Evolving within ICT Practice  
**Lyndsay Turley**, (ISC)<sup>2</sup> & CEN WS on ICT Skills

15.30 Coffee

### 16.00 Panel on Legal Informatics – Document Management, Privacy, Security, Ethics

17.30 Closing

## Organization

- IT STAR
- Conference Co-Chairs
- Contact

## Venue

- Milan, Italy
- Conference location

## Host

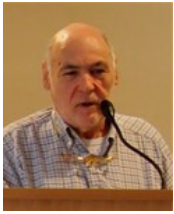
- AICA

## Member Societies

- IT STAR Member Societies

<http://www.starbus.org/ws10>

## Speakers and co-Authors



**Roberto Bellini** is AICA's responsible officer for Professional Systems, and member of AISM, the Association of Marketing Professionals.



**Kiril Boyanov** is Member of the Bulgarian Academy of Sciences. He has provided leadership within the Bulgarian ICT industry and in ICT R&D, notably as Director of the Institute of Information and Communication Technology.



**Claudio Cilli** is Professor at the Department of Computer Science, University of Rome "La Sapienza".



**Ivan Dimov** is Vice-Minister of Education and Science and Scientific Secretary of the Bulgarian Academy of Sciences.



**Paulo Empadinhas** is Head of Stakeholders Relations and Administration Department of the European Union Agency for Network and Information Security (ENISA).



**Giuseppe Mastronardi** is President of AICA and Professor of Information Processing Systems at Politecnico di Bari.



**Balint Molnar** is Professor at Lorand Eotvos University of Budapest and teaches Methodologies of Information System Development, ERP and Integrated Systems, Web technologies for Enterprise Information Systems, Database Management Systems, Theoretical Background of Information Management, Enterprise Architecture and Security Architectures.



**Daniel Olejar** is Vice-Rector of Comenius University, Bratislava and lectures on discrete mathematics, mathematical logic, set theory, computability theory, computer architectures, coding theory, combinatorics, and cryptology and information security.



**Martin Przewloka** has over 25 years of experience as an entrepreneur, in top industry management and in research & development. He is a recognized expert in the digital transformation with a strong focus on discrete industries, service industries and retail industries.



**Veronica Salsano** works in UNINFO, the associated Body of UNI, which is responsible for Standards for Information Technology and related applications in Italy. She manages the Secretariat of CEN/TC 428 "Digital competences and ICT Professionalism".



**Blagovest Sendov** is Member of the Bulgarian Academy of Sciences. He was Rector of Sofia University, President of the Bulgarian Academy of Sciences, President of the International Association of Universities and the International Federation for Information Processing. He was Chairman of the Bulgarian Parliament and Bulgarian Ambassador to Japan.



**Lyndsay Turley** is Director of Communications & Public Affairs with (ISC)<sup>2</sup> EMEA, the world's and EMEA region's largest not-for-profit body of cyber and information security professionals.

## Successful digital transformation of mature SME businesses

Martin Przewloka



*Martin Przewloka is CEO of GFFT Technologies, Germany. He has over 25 years of experience as an entrepreneur in top industry management and in research & development. He is a recognized expert in the digital transformation with a strong focus on discrete industries, service industries and retail industries.*

Many companies have recognized the opportunities of digitization, but behave reluctant or hesitant to raise the opportunities and potentials. Saving costs and increasing productivity are with them instead in the foreground - innovation or even the development of digital strategies is deliberately neglected. When asked about the reasons, complexity and speed of technological developments, high investment requirements and significant security concerns are cited as the main reasons for their passive behavior.

In various conversations with mature and well positioned small and medium enterprises (SME's) focusing on digital transformation, problems and risk areas were expressed for example as follows: <sup>1</sup>

- "We lack the time to deal with these issues."
- "Digital Transformation is just a hype!"
- "We lack the necessary IT skills and we do not have software developers."
- "If obviously many elements of our business seem to make use of the cloud, how secure and sustainable is data in the cloud?"

These experiences allow the formulation of two hypotheses:

- 1) The opportunities and potential of digitization have not yet arrived in the (mature) SME sector. It is neither understood what the digitization for the company means nor it is possible to estimate how the demonstrably changing customer requirements affect the markets and the offerings of their own company.
- 2) The mere top-down formulation of a digital transformation strategy without tangible actions for everyone involved (customer, partners, employees) measures only slowly or even no success. Finally fails this approach often to the sustainability and acceptability of all parties to be involved.

While young, small companies – often called 'startups' - can identify and develop new businesses very agile and dynamic, established companies have it much harder to transform their existing businesses. Beyond that, especially small and medium enterprises are rapidly overwhelmed by the technical and economic consequences of a digital

<sup>1</sup> Please note that these quotes are only examples expressing the fears of a digital transformation, but do not claim to be complete.

transformation. In particular, the demands on IT security are often at the forefront and lead to transformation projects that will not start or will not be implemented successfully.

The author has developed a methodical approach to developing and implementing a digital transformation strategy, which initially fully isolates the company from the currently existing technical restrictions, such as IT requirements and technical skills. An exclusively customer centered approach leads to the development of a vision, which is systematically dismantled in the following phases which in particular contains the detailed requirements for digital services based on a secure IT infrastructure.

The following core components and phases build the foundation to develop a successful digital transformation strategy for mature SME's:

- Identification of present and future challenges of the company considering current and future market developments. In addition, a survey of the current status of digitization is necessary.
- Application of an appropriate methodology - e.g. Design Thinking<sup>2</sup> - to generate ideas of possible changes and transformations. Here it is essential to take the position of the customer and initially get rid of all technical and economic constraints of the own company. In this phase of finding, the focus is mainly placed on new products and solutions. The potential changes in internal processes and structures are initially considered as these represent only further restrictions.
- Iterative improvement and review of the findings regarding feasibility, opportunities and risks. In this context, a portfolio analysis has to be carried out considering all products/solutions provided by the enterprise. Furthermore, cooperation models with partners or other companies should be considered as options to implement the digitization.
- Development of concrete, actionable proposals up to the representation of a roadmap. In this context, measures can already be developed that support the future business position aligned to the digital transformation. As part of this phase, the necessary adjustments and changes in the internal structures now need to be discussed. This includes mainly the areas of business processes, organizational aspects as well as possible make or buy decisions. In general, these adjustments will also be supported by digital technologies such as streamlined and seamless communication processes.
- Changes in business models can be fundamental to future success and have to be considered in this phase. At the latest at this point has to be decided to what extent a way of cannibalization of the existing business model through the digital transformation can be accepted<sup>3</sup>. Exactly at this point takes the digital transformation direct impact on the future business strategy.

<sup>2</sup> Please refer for example: Tim Brown; „Design Thinking” in: Harvard Business Review, June 2008

<sup>3</sup> As is known, this point led precisely to fundamental decisions and changes in the software industry as the transition of the classic licensing business towards the cloud pay-per-use business model has been carried out. It finally cannibalized existing businesses significantly.

In total it has been found that a problem-based approach (bottom-up) is significantly faster to develop a digital strategy for a mature SME than the hitherto reverse approach (top-down). For example, using this approach, the author has developed end-to-end digital strategies for manufacturing enterprises, retail enterprises as well as service industries. In context with the 10<sup>th</sup> IT STAR conference in October 2016, the author will present two selected concrete industry use cases where this method has been successfully applied. ■

---

## IT Security in Hungarian Public Administration

### Models of Information Security Architecture in Practice

*Balint Molnar*



*Balint Molnar is professor at Lorand Eotvos University of Budapest and teaches Methodologies of Information System Development, ERP and Integrated Systems, Web technologies for Enterprise Information Systems, Database Management Systems, Theoretical Background of Information Management, Enterprise Architecture and Security Architectures.*

The Law for Information Security was finally codified (2013. L. law) and accepted by the parliament in Hungary. Primarily, the law and the related orders and decrees regulate public institutions. To make it operational, massive teaching activities have been started to educate the information managers within public administration.

Beside the central government, there are roughly 3000 local governments in Hungary and their various institutions under their auspices. The law contains strict regulations for categorization and evaluation of information systems that are either used or operated by local and central government, or their agencies.

There are several practical problems as e.g. how to carry out the evaluation and categorization? Which method should be followed? How to find balance between the strict regulation and scarce resources? What kind of assistance can be provided by an Enterprise Architecture based methods to be provided?

A dedicated institution was established, namely the National Authority for Electronic Information Security, that provides requirements and auditing services.

The National University of Public Administration runs courses for civil servants about the legal background, knowledge on the basic IT and Security, Information Security Policies, Strategies and Program.

One of the approaches that proves to be usable is the theory and practice of the Enterprise and Information Architecture extended with the Security Aspects. The Zachman Framework/Ontology, the TOGAF standard, and the SABSA method can be used to yield a framework that can assist the evaluation and categorization of the operational information system at each single institute.

The general frameworks are transformed into tables of Microsoft Word and EXCEL that are usable in practice and help understand the complex organization and IT environment.

By law, it is compulsory for each institute within public administration to perform categorization and evaluation of information systems. The newly developed information systems should be assessed by the requirements specified by National Authority for Electronic Information Security.

The practical problem is that the law and accompanying regulation obliges the entities within public administration to put the category for each information system into a higher position (there is a five grade scale). The reason for that is that information related to personal data and the procedures of public administration needs high security qualification.

Problems to be solved in future:

- A compromise should be found between the plain requirements of cyber security and financial resources of smaller local governments.
- A handbook should be created that briefly and comprehensively provides assistance to Information Guardians having only basic IT knowledge. ■

---

## Defending our privacy – Do not speak aloud: A true story

*Claudio Cilli*



*Claudio Cilli is professor of Computer Science at the University of Rome “La Sapienza” in areas related to computer science, software compilers, lexical and semantic analysers, information systems analysis and development, computer security, cyber-security attack and defense techniques.*

*Claudio will be a speaker at the forthcoming 10th IT STAR WS on IT Security in Milan.*

George speaks aloud on the train Turin – Rome on a mobile phone. He pronounces his name, whose initials are also on his luggage tag.

He speaks of money, houses, restructuring. He seems to be handling a lot of money, with aplomb: very likely it is not his own money.

He calls his mother to greet her and it seems that he's asking for money. I was right: he is obviously a young rampant, but perhaps also a rascal?! He talks to friends and to his mother of coming contracts that would put at his disposition a considerable amount of money, but in the meantime she should anticipate!

I'm assuming that he deals with finances, more exactly in speculative investments. Perhaps for rich men who want to leverage their assets, or something related to money laundering. It makes me think of the Italian Parioli Madoff... (a guy who tried to emulate the "original" Madoff and now will spend the rest of his life in jail): it's automatic.

He says - and then he really does so - that he is going to Milan, his city. I have enough information to begin my work of intelligence through the Internet. For added security I wait until he gets off the train...

On Internet there's everything: you just have to look for it. And everything that is on the net remains there forever, without any chance of cancellation. I keep on...

The research is not banal. There are many people named George on LinkedIn, but no one seems to be my man. If it is true what I think, he is not on a professionals' network as a person, perhaps with his company. We need to find what it is.

On Facebook, instead, he is not to be missed. He is young and single: he needs friends and relations. Only that there are many Georges. Let's refine the search... "George Milan"...

There are many, but the surprise is that there's also a "George Scam". He is not a real user: perhaps someone who knows him or had to do with him (and lost money) has tried to take revenge. However, the profile says that he is from Turin and he lives in Milan (it matches: in fact he climbed in Turin, perhaps he went to his mother to grab some money, and got off the train in Milan).

Continuing to look for with the available evidence (the George Scam allowed me to trace the correct profile of my man on Facebook), I stumble in *www.h2biz.eu* site, which says:

*Makemoney (...)*  
*Brand / Brand: COC*  
*Sector: Credit and finance*  
*City: Prague (Prague)*  
*Manager name: George (...)*  
*Web Site: <http://www.makemoneyxxx.com>*

Bingo! The society exists: this was confirmed by Czech search sites, but, analyzing the company web site it can be seen that...

*George (...)*  
*(...) (TO), Via (...)*  
*Italska republika*

*Vklad: (...)Kč*  
*Splaceno: 100 %*  
*Obchodni podil: 100 %*

Now we also know where our friend lives.

The company's registered office corresponds to a business center in a fairly central position in Prague. The sites <http://rejstrik.penize.cz/adresa-firmy/> and <http://regiony.kurzy.cz/praha/> show that there is a large list of companies with registered offices in Prague.

We know almost everything: it remains to be seen if he's hiding something. We study the site a little more. *Whois* tells it's Italian, and registered at Aruba, an ISP (Internet Service Provider), which has its headquarters in Tuscany, and it's a *Wordpress* standard site (the owner is US Tucows Domains Inc.). The email of the referent is *g.xxx @ makemoneyxxx.com*.

The site *www.makemoneyxxx.com* is registered but does not exist. Continuing the search on *Whois* I discovered that the owner used *contactprivacy*, a service that allows to hide identity to *Whois* services: "*Welcome to contactprivacy.com Use this site to contact the owner of a domain name protected by the WHOIS Privacy Service. This service protects the privacy of domain name holders in the WHOIS system. Please note that domain name owners are not obligated to respond to requests. Enter the domain you would like to contact the owner of. Please do not enter 'www' in your query: \_\_\_\_\_*"

Let's have a close look at this *Wordpress* site (it takes ten minutes to create a site of this type):

- Descriptions of the various services offered are generic and do not show what truly Makemoney (...) does;
- Other locations, based in other countries, are indicated, but the addresses are missing;
- It is not indicated any person (manager, shareholder, director, etc.);
- The only contact, if you do not want to send a letter to the Czech Republic, is the mailbox: *info@makemoneyxxx.com*

One thing is for sure: it is not through the web that George's company seeks its customers! We know enough. We could try to discover the other locations and check if they really exist, but the train has arrived in Rome and I must get off. I hope that my assumptions are wrong and Makemoneyxxx is a serious company...

## Standardization of Knowledge and Skills for IT Security

Veronica Salsano



*Veronica Salsano works in UNINFO, the associated Body of UNI, which is responsible of Standards for the Information Technology and related applications in Italy. She manages the secretariat of the Technical Committee CEN/TC 428 “Digital competences and ICT Professionalism”.*

### Actors

It seems appropriate to classify with some simplifications the most active organizations from a geographical point of view, with the caveat that geographical subordination does not necessarily imply functional dependency.

At the national level the UNINFO Technical Committee “Unregulated professional activities - Professions in the ICT domain” develops Italian national standards, and acts as mirror committee to the European and international organizations.

UNINFO is the only NSO National Standards Organization mentioned here because (as far as it is known to the author of this report) Italy is the only European country actively engaged in the development of standards for professionalism organization.

The current focus is on the update of e-CF and on the standardization of profiles. One of the several Working Groups focusing on profiles is WG “Information technology security professional profiles”; another group is WG “Privacy professional profiles”.

In Europe the reference Standards Organization is CEN/TC 428 “Digital Competences and ICT Professionalism”. CEN/TC 428 is currently in the process of defining its Work plan. It is expected that it will cover the whole spectrum of specifications relative to professionalism.

Internationally, new initiatives in the area of ICT competences are ongoing.

Work on several Sectorial Profiles is progressing in Italy, and some of them, including those on security, have reached the status of national standards. It is envisaged that they migrate into European standards, as soon as CEN/TC 428 has defined a consensus Work plan.

ISO/IEC JTC 1 is driven by the NBs. Their developments are quite independent of the European endeavors, and information exchange relies on liaisons only and informally on some cases of cross participation. There is clear risk of

divergence and fragmentation, but the issue has not reached the frontlines.

### Current situation

This section contains an overview of the approved standards, and provides some insight of the significant work in progress.

At the European level CEN has approved the CEN Workshop Agreement “e-CF- European Competence Framework”- Version 3.0 in the following standards:

- EN 16234-1:2016 – ee-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all industry sectors - Part 1: Framework
- CEN/TR 16234-2:2016 – e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all industry sectors - Part 2: User Guide
- WI TR 16234-3 – e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all industry sectors - Part 3: Methodology.

Currently the activity focus is on the definition of a Work plan to drive future developments and solve the issues mentioned in the last part of this report.

Italy, having adopted EN 16234-1, has supplemented it with a national addendum, to allow the use of the standard for certification purposes. This step was essential, as the certification activity, based on a national standard superseded by EN 16234-1 and more complete than the latter, is well established.

Italy is currently concentrating on the definition of profiles. Methodology and examples can be found in UNI 11621-1 and -2 standards “Unregulated professional activities- Professions in the ICT sector”.

The subsequent parts define the actual profiles. Part 3 and 4 are Italian standards; Part 4 deals with profiles for information security. The other parts are at various levels of maturity.

### ISO standards

Internationally, ISO/IEC JTC 001/SC 07 “Software and systems engineering” has formed WG 20 “Software and Systems Bodies of Knowledge and Professionalization and Related Activities”.

ISO/IEC JTC 1/SC 27 IT Security techniques has started in its WG1 “Information security management systems” project ISO/IEC 27021 “Information Technology – Security techniques – Competence requirements for information security management systems professional”. In its WG 3 “Security evaluation, testing and specification” has developed ISO/IEC 19896 “Competence requirements for information security testers and evaluators” which has become a multipart standard.

## Security

If we focus on profiles strictly on security professions, as documented by the Italian UNI 11621-4, two second-generation profiles have been approved

- ICT Security Manager and
- ICT Security specialist

Nine third-generation profiles have inherited the specifications of the latter

- Information security top manager (CISO)
- Information security manager
- Information security process analyst
- Information security technical analyst
- Forensics analyst
- Information security process specialist
- Information security infrastructures specialist
- Information security applications specialist
- Incident response specialist

Finally three other profiles are defined based on national or international standards, as documented in UNI 11621-4

- ICT Security manager
- Digital data conservation manager
- Specialist for continuing operations.

Internationally, as mentioned above, ISO/IEC JTC1 has developed ISO/IEC 19896 “Competence requirements for information security testers and evaluators” parts 1, Part 2 and Part 3.

### The way forward

The most important activity relates to profiles. With e-CF well established as the reference framework, to what extent should standardization progress to define sectorial profiles? Two diverging requirements clash here. On the one hand there is the need of certification: the more detailed are the specifications, the easier the task of the certifiers. On the other hand detailed specifications tend to be volatile, and to be inadequate to cover a generality of cases: hence fragmentation.

Profiles lead to another and more subtle difficulty. Profiles fall typically in nobody’s land between the domain of ICT and a user domain. Standard making organizations are often geared to deal with clear-cut situations, and ill prepared to foster and govern strict collaboration between otherwise completely independent bodies, as it is required in our case. Goodwill from all concerned parties will be needed indeed.

Several hints suggest that a revision of the framework EN 16234-1 is needed with some urgency. Specifications become rapidly obsolete in a rapidly changing environment; those who do not evolve become rapidly extinct. Yet the revision has not yet started, and it is unclear when it will.

Finally, some National Bodies are actively pursuing the development of national standards with the goal of providing technical support to legislation. A “Deviation A” as prescribed by the CEN rules, may become a common procedure, and not an exception. ■

## IT Security Professionalism with e-CFplus support

Roberto Bellini



*Roberto Bellini is AICA’s responsible officer for Professional Systems and member of AISM, the Association of Marketing Professionals.*

### Context of the ICT sector and the importance of security

The context of socio-economic system and enterprises organization is very complex and requires more and more flexibility. The competencies (which express the content of the work) have become the distinguishing factor of professionalism; ICT skills are needed to develop and maintain effective and flexible information systems, adapting to different situations in which we produce and spread digital services.

With increasing complexity of society and flexible business it becomes even more difficult to maintain the goal of employability: the labor market pushes competencies to become a prerogative of the person (instead of considering it as a “consequence” of the work role); competence is proposed as the focus of lifelong learning center which defines the various moments of re-qualification to improve the marketability of a specialist on the labor market.

The achievement of these objectives is promoted by the introduction of the European reference framework e-CF (ICT competencies), since few months adopted as standard by 28 European Countries, and the adoption of a concept of “upgrading” competencies, taking advantage of its measurability and certifiability.

The ICT sector is particularly sensitive to the problems of employability and therefore the reduction of the mismatch between the professionalism offers and that available: one of the hardest-to-find profiles is that of the ICT security specialist, as is clear from the results of the Observatory of the Digital Skills published in Italy in early 2016.

To build adequate skills to labor market needs, we exploit the availability in the industry of the e-CF.

### From skills to the enriched professional profile and professionalism

The European e-Competence Framework (e-CF) is a structured system of competences that describes high-level knowledge and skills required in the context of ICT processes of an organization. It can be used by all types of

companies and organizations and is supported by the European Union. In Italy it is also supported by the Agency for Digital Italy (AgID) and became an Italian standard in September 2013. Since 2016 e-CF is a European Standard.

The e-CF covers the entire field of managerial and technical ICT skills through brief descriptions of 40 skills, divided into several levels (2 to 4) according to a scale of 5 “qualifications” compatible with the European Qualification Framework (EQF).

The e-CF*plus* System starts from the e-CF framework to detail through different components the operational terms to assess the digital skills possessed by ICT specialists, to evaluate them and develop suitable plan and actions to improve their professional value, associated to the CEN defined 23 “European ICT Professional Profiles” which outline some typical ICT roles in terms of mission, deliverables, key activities and KPI.

**e-Competence Management (e-CM)**, provided by AICA, is a tool compliant with the e-CF*plus* model and designed for enterprise use that provides a vision of the profiles based on the 40 basic competencies, but enriched by 157 sets of knowledge and skills integrated at dimension 4; the profile calculated by the tool on the 157 possessed sets of skills, knowledge and competencies is analytical and concise, accurate and customizable of the individual and organization needs; e-CM allows companies and individual specialists to improve the results of their ICT responsible and teams, by aligning skills and competences with business objectives.

The guidelines on ICT professional system as they emerge as EU research results (The European Foundational ICT Body of Knowledge, 2015), the indication of the CEPIS flyer on Towards an European Framework for the ICT Profession (2016) and the recent Intermediate Report on the Framework for the ICT profession (June 2016), clarify that 4 are the components to be considered to get a professional ICT: the body of knowledge, skills, training and rules of behavior. The tool e-CM provides a result that touches the first three components.

### IT Security professionalism

The portfolio of 23 professional profiles associated to the standard provides two e-CF focused profiles for the management and improvement of ICT security:

- **ICT SECURITY SPECIALIST:** Ensures the implementation of the organizations security policy; e-CF*plus* version is enriched with nine sets of knowledge and skills in dimension 4
- **ICT SECURITY MANAGER:** Manages the information system security policy; e-CF*plus* version is enriched with three sets of knowledge and skills in dimension 4

These two profiles are considered for the definition of career paths leading specialist security from the entrance qualification in the profession to that of manager/leader, certified and recognized at European level.

As for training in particular, the tool allows the candidate to detect the level of ownership of the knowledge and skills and proposes the list and the value of competence gaps calculated with respect to the provisions of the reference profile.

For each candidate the tool e-CM provides an individual card that lists all the knowledge and skills lacking on which action is required if the candidate wants to improve the level of possessed competences.

### Towards a sustainable system to manage Professional's Positioning and Monitoring

To support the professional development of ICT specialists, the e-CM tool's results provide an instrumented support to give answers to three basic questions of working life that the specialist arises:

- What is it and what should I do that is now recognized by the labor market? The answer is in the Proximity Profile with the highest score among the 23 profiles of the portfolio e-CF (current position)
- What professional guidance would be worth to me, enhancing the experience made so far? The answer lies on the one hand in the choice of the target profile that the specialist wants to pursue (position to stretch) and on the other in the feasibility study that one can define through analysis of depth and dispersion of training interventions or participation in targeted projects
- How can I get help to systematically monitor my professional development and to gather information for the technical update to the orientation chosen occupation? The answer is in the periodic repetition of the verification of the professional position cycle to date and the evaluation of the reduction or the increase of the gap with respect to the target profile

The route proposed by AICA winds through a circular sequence of structured stages providing an answer to these questions in a manner consistent with the indication of the EU and keeping the standard constraints and built-in tools e-CM.

Based on the results of the checks on the current professional position and strive, AICA offers to ICT professionals a Certificate of Qualification and Certification, with European value, the drafting of a training plan aimed at the target profile and participation in training modules chosen.

The professional positioning path can be done on an annual (or biennial) basis for the verification of the achieved rankings and any adjustments. ■

## Changing Landscape, Changing Roles: Understanding how Cyber-Security is Evolving within ICT practice

Lyndsay Turley



*Lyndsay Turley is Director of Communications & Public Affairs with (ISC)² EMEA, the world's and EMEA region's largest not-for-profit body of cyber and information security professionals. She has a particular focus on working with the (ISC)² membership and its EMEA Advisory Council to address the broader societal concerns that are emerging as the digital economy evolves.*

The onset of the connected world heralds a fundamental change in the way society and its economies are developing with the Internet. The fundamental drivers that have established the practice of ICT, however, were laid down before this phenomenon. As a result, the evolution of technology, ICT practice and the related innovative effort continues to be inherently driven by the development of new possibilities with little investment in understanding the associated risks. It's not that the risks and the need for security isn't a consideration at all; such concerns have risen to great prominence in recent years on the back of high-profile news stories and regulators recognition of the threats, however broad understanding for the enormity of the task and how we must evolve remains immature.

We have seen the emergence of an IT and information security profession, and specialist areas of practice with a community of over 100,000 people around the world usually working in focused roles. In many parts of the world, and within larger companies this community has evolved outside the IT department, leaving a significant gap in the development of the fundamental concepts and competences that are also applicable to ICT practice. Further, a far-reaching false sense of security has arisen in the belief that the cyber-security professional or department is accountable and taking care of requirements.

As a result, businesses have evolved with technology-enabled development outside the purview of an increasingly overburdened cyber-security function. The real need is to recognise how companies, systems and infrastructures are evolving and develop a common understanding of the supporting cyber-security competences and where they apply. This goes much further than the need for technical excellence in forensics, technical analysis or penetration testing: The call is for a comprehensive effort that spans industry and management disciplines, to develop competence and instincts across a broad pool of talent that can reassess business risk, product and service development requirements, and organisational resilience.

(ISC)², as the world's largest membership body of cyber, information and infrastructure security professionals joined the CEN Workshop on ICT skills to bring a frontline perspective from practicing cyber-security professionals to the effort from Europe's IT and informatics professional bodies to establish an ICT profession in Europe. This session will review the workshop's collaborative effort - as the author of the European Competence Framework (eCF) now recognised as a European standard - to document and embed cyber and IT security considerations from the conceptual and design stages to the operation and management of systems, services and products. It will also draw from the (ISC)² Global Information Security Workforce Study program which has since 2004 tracked the profile of the security profession and trends driving the need for skills and competence in this area. Delegates will gain an understanding of the scope of work underway to illuminate:

- Core concepts and fundamentals and their relation to established standards and frameworks
- The ICT roles that require security competence and how they are changing
- Evolving organisational structures for cyber-security management and the interfaces with ICT practice
- The influence of and expectations from academia and formal education in this area
- Developing resources and communities or practice within the academic arena. ■

## International Olympiads in Informatics

### Young Talent Revisited

Plamen Nedkov



*Plamen Nedkov is IT STAR's Chief Executive and Newsletter Editor. He was Project coordinator of the AICA - IT STAR Survey on Young Talent in Informatics.*

In 2012, on the occasion of the 24<sup>th</sup> International Olympiad in Informatics (IOI), AICA, the Italian Computer Association, initiated an AICA – IT STAR Study on *Young Talent in Informatics*, intended to gauge the success factors that make many CEE national IOI teams successful in regional and international competitions of algorithmic nature, in which secondary school students show such basic IT skills as problem analysis, design of algorithms and data structures, programming and testing.

The study was presented during the International confer-

ence on *Young Talent in Informatics*, held in conjunction with the 24<sup>th</sup> IOI in Lombardy, Italy under the patronage of UNESCO, and was supported by key educationalists, specialists, decision makers and politicians with sound competences in the field.

Representatives and institutions from six countries – **Bulgaria, Croatia, Latvia, Poland, Romania and Slovakia** – were involved, and on the basis of questionnaires, follow-up investigations, personal interviews, desk research and consultations, the following broadly-defined factors contributing to the successful participation of these countries in IOI competitions were identified and agreed upon:

- *Tradition*
- *Strong emphasis on mathematics*
- *Targeted extracurricular activities*
- *Early start in gaining experience through competitions*
- *Systematic management, dedicated people*
- *Motivation and reward*

The “know-how” in preparing secondary school students for IOI competitions is deeply rooted in Central and Eastern Europe, and continues to be the major source of achievement despite the current state of the education system in most of these countries.

These findings have wide implications within education and beyond, and provide a platform for further consideration within the EU.

With this in mind we have tried on several occasions to draw the interest and support of the European Commission. We continue to be dedicated to the topic of Talent in Informatics and since 2012 have monitored the results of the Central European and International Olympiads in Informatics, which basically confirm the findings of our original study.

The results of the latest two 2016 competitions are as follows:

#### Central European Olympiad in Informatics



**18 – 23 July 2016**  
**Piatra-Neamt, Romania**

<http://www.ceoi2016.ro/>

52 participants from 12 countries were presented in Piatra-Neamt. The represented countries were: Bulgaria, Croatia, Czech Republic, Georgia, Germany, Hungary, Moldova, Poland, Romania, Slovakia, Slovenia and Switzerland.

The top 10 ranking participants were:

1	Mishinev, Encho	Bulgaria
2	Venev, Hristo	Bulgaria
3	Radecki, Mateusz	Poland
4	Bradač, Domagoj	Croatia
5	Marian, Darius	Romania 2
6	Gáspár, Attila	Hungary
7	Krastev, Aleksandar	Bulgaria
8	Rochian, Vlad-Mihai	Romania 1
9	Mernyei, Péter	Hungary
10	Constantin-Buliga, Ștefan	Romania 2

#### 28<sup>th</sup> International Olympiad in Informatics



**12 – 19 August 2016**

**Kazan, Russia**

<http://ioi2016.ru/>

Over 300 contestants from 86 countries took part in the 28<sup>th</sup> International Olympiad in Informatics in Kazan, Russia. The results of the top 10 participants from IT STAR countries (ranked by # in the general ranking of IOI'2016) were:

8	Kwiecień, Jarosław	Poland	<b>Gold</b>
8	Venev, Hristo	Bulgaria	<b>Gold</b>
14	Radecki, Mateusz	Poland	<b>Gold</b>
15	Volhejn, Václav	Czech Rep.	<b>Gold</b>
23	Popovs, Aleksejs	Latvia	<b>Gold</b>
30	Baroni, Filippo Gianni	Italy	<b>Silver</b>
31	Bradač, Domagoj	Croatia	<b>Silver</b>
33	Oncescu, Costin-Andrei	Romania	<b>Silver</b>
36	Erdős, Márton	Hungary	<b>Silver</b>
43	Constantinescu, Andrei-Costin	Romania	<b>Silver</b>

The first 2 places in the general ranking went to Chinese participants, followed by Russians on place 3 and 4, a Japanese and a Chinese sharing rank 5, and a Canadian on place 7.

The results are another confirmation of the excellent performance of most of the countries that took part in the AICA – IT STAR Survey on *Young Talent in Informatics*. ■

## Member Society News & Events

### Italy

*Giulio Occhini*, IT STAR founding member and representative of AICA, retired after a long and successful career as AICA's Chief Executive. In recognition of his services he was elected as AICA Honorary President.

IT STAR looks forward to Giulio's continued input in its activities and wishes him the best in his future personal and professional endeavors.

---

### Partner Publication



<http://mondodigitale.aicanet.net/ultimo/index.xml>



### Slovakia



**eSkills for Jobs Campaign,  
organized under the EU Slovakian Presidency**

17-18 October 2016

Bratislava, Slovakia

[www.eskills4jobs.sk](http://www.eskills4jobs.sk)

More than 200 policy makers, business leaders and experts are expected to gather in Bratislava and debate how digital technologies transform our lives, their impact on the way we live, learn and work. This digital transformation is based on the availability of appropriate digital skills for all citizens and acquiring such skills will have a positive impact on finding jobs, reducing unemployment and integrating all citizens into society. ■

---

### Forthcoming IT STAR Events

2016

**10<sup>th</sup> IT STAR Workshop on IT Security**

28 October 2016, Milan, Italy

<http://starbus.org/ws10>

2017

**11<sup>th</sup> IT STAR Workshop, Bulgaria**

*Topic, dates and place to be communicated in due time* ■

---

### European Commission



The 4<sup>th</sup> edition of Code Week EU is scheduled between 15 and 23 October. Millions of children, young adults, adults, parents, teachers, entrepreneurs, and policymakers will again come together at events, in classrooms and libraries across Europe and beyond to learn to create with code.

Further information about Code Week is available at <http://codeweek.eu/> ■



# 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) G. Kotsis, E. Mühlvenzl, R. Bieber
- Bulgaria (2003) K. Boyanov, I. Dimov
- Croatia (2002) M. Frkovic
- 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
- Slovenia (2001) N. Schlamberger

## 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:

- 2015 Warsaw, **Poland** (October)
- 2014 Szeged, **Hungary** (September)
- 2013 Bari, **Italy** (May)
- 2012 Bratislava, **Slovakia** (April)
- 2011 Portoroz, **Slovenia** (April)
- 2010 Zagreb, **Croatia** (November)
- 2009 Rome, **Italy** (November)
- 2008 Godollo, **Hungary** (November)

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

## Coordinators

- 2015 – Marek Holynski
- 2010 – 2015 Igor Privara
- 2006 – 2010 Giulio Occhini
- 2003 – 2006 Niko Schlamberger
- 2001 – 2003 Plamen Nedkov (cur. Chief Executive)















## Major Activities

- 9<sup>th</sup> IT STAR WS on ICT Strategies and Applications  
<http://www.starbus.org/ws9>
- 8<sup>th</sup> IT STAR WS on History of Computing  
<http://www.starbus.org/ws8>
- 7<sup>th</sup> IT STAR WS on eBusiness -  
<http://www.starbus.org/ws7>
- 6<sup>th</sup> IT STAR WS on Digital Security -  
<http://www.starbus.org/ws6>
- IPTS - IT STAR Conference on R&D in EEMS -  
<http://eems.starbus.org>
- 5<sup>th</sup> IT STAR WS and publication on Electronic Business - <http://starbus.org/ws5/ws5.htm>
- 4<sup>th</sup> IT STAR WS and publication on Skills Education and Certification - <http://starbus.org/ws4/ws4.htm>
- 3<sup>rd</sup> IT STAR WS and publication on National Information Society Experiences – NISE 08  
<http://www.starbus.org/ws3/ws3.htm>
- 2<sup>nd</sup> IT STAR WS and publication on Universities and the ICT Industry  
<http://www.starbus.org/ws2/ws2.htm>
- 1<sup>st</sup> IT STAR WS and publication on R&D in ICT  
<http://www.starbus.org/ws1/ws1.htm>

## Periodicals & Web-site

The IT STAR Newsletter ([nl.starbus.org](http://nl.starbus.org)) published quarterly.  
[www.itstar.eu](http://www.itstar.eu) ■

## IT STAR Member Societies

<p><b>Austrian Computer Society – OCG</b>  Wollzeile 1,  A-1010 VIENNA, Austria  Tel. +43 1 512 0235 Fax +43 1 512 02359  e-mail: <a href="mailto:ocg@ocg.at">ocg@ocg.at</a>  <a href="http://www.ocg.at">www.ocg.at</a></p> 	<p><b>Bulgarian Academy of Sciences – BAS</b>  Institute for Information and Communication Technology  Acad.G.Bonchev str.B1.25A  SOFIA 1113, Bulgaria  Tel +359 2 8708494 Fax +359 2 8707273  e-mail: <a href="mailto:vomidiv@gmail.com">vomidiv@gmail.com</a>  <a href="http://www.bas.bg">www.bas.bg</a></p> 
<p><b>Croatian IT Association– CITA</b>  Ilica 191 E/II,  10000 ZAGREB, Croatia  Tel. +385 1 2222 722 Fax +385 1 2222 723  e-mail: <a href="mailto:hiz@hiz.hr">hiz@hiz.hr</a>  <a href="http://www.hiz.hr">www.hiz.hr</a></p> 	<p><b>The Cyprus Computer Society – CCS</b>  P.O.Box 27038  1641 NICOSIA, Cyprus  Tel. +357 22460680 Fax +357 22767349  e-mail: <a href="mailto:info@ccs.org.cy">info@ccs.org.cy</a>  <a href="http://www.ccs.org.cy">www.ccs.org.cy</a></p> 
<p><b>Czech Society for Cybernetics and Informatics – CSKI</b>  Pod vodarenskou vezi 2,  CZ-182 07 PRAGUE 8 – Liben  Czech Republic  Tel. +420 266 053 901 Fax +420 286 585 789  e-mail: <a href="mailto:cski@utia.cas.cz">cski@utia.cas.cz</a>  <a href="http://www.cski.cz">www.cski.cz</a></p> 	<p><b>Greek Computer Society – GCS</b>  Thessaloniki &amp; Chandri 1, Moshato  GR-18346 ATHENS, Greece  Tel. +30 210 480 2886 Fax +30 210 480 2889  e-mail: <a href="mailto:epy@epy.gr">epy@epy.gr</a>  <a href="http://www.epy.gr">www.epy.gr</a></p> 
<p><b>John v. Neumann Computer Society – NJSZT</b>  P.O. Box 210,  Bathori u. 16  H-1364 BUDAPEST, Hungary  Tel.+36 1 472 2730 Fax +36 1 472 2739  e-mail: <a href="mailto:titkarsag@njszt.hu">titkarsag@njszt.hu</a>  <a href="http://www.njszt.hu">www.njszt.hu</a></p> 	<p><b>Associazione Italiana per l' Informatica ed il Calcolo Automatico – AICA</b>  Piazzale R. Morandi, 2  I-20121 MILAN, Italy  Tel. +39 02 760 14082 Fax +39 02 760 15717  e-mail: <a href="mailto:g.occhini@aicanet.it">g.occhini@aicanet.it</a>  <a href="http://www.aicanet.it">www.aicanet.it</a></p> 
<p><b>Lithuanian Computer Society – LIKS</b>  Geležinio Vilko g. 12-113  LT-01112 VILNIUS, Lithuania  Tel. +370 2 62 05 36  e-mail: <a href="mailto:liks@liks.lt">liks@liks.lt</a>  <a href="http://www.liks.lt">www.liks.lt</a></p> 	<p><b>Macedonian Association for Information Technology – MASIT</b>  Dimitrie Cupovski 13  1000 SKOPJE, Macedonia  e-mail: <a href="mailto:indovski.p@gord.com.mk">indovski.p@gord.com.mk</a>  <a href="http://www.masit.org.mk">www.masit.org.mk</a></p> 
<p><b>Polish Information Processing Society</b>  Zarząd Główny  ul. Solec 38 lok. 103  00-394 Warszawa  Tel./Fax +48 22 838 47 05  e-mail: <a href="mailto:marek.holynski@gmail.com">marek.holynski@gmail.com</a>  <a href="http://www.pti.org.pl">www.pti.org.pl</a></p> 	<p><b>Asociatia pentru Tehnologia Informatiei si Comunicatii – ATIC</b>  Calea Floreasca Nr. 167, Sectorul 1  014459 BUCAREST, Romania  Tel +402 1 233 1846 Fax +402 1 233 1877  e-mail: <a href="mailto:info@atic.org.ro">info@atic.org.ro</a>  <a href="http://www.atic.org.ro">www.atic.org.ro</a></p> 
<p><b>JISA Union of ICT Societies</b>  Zmaj Jovina 4  11000 BELGRADE, Serbia  Tel.+ 381 11 2620374, 2632996 Fax + 381 11 2626576  e- mail: <a href="mailto:dukic@jisa.rs">dukic@jisa.rs</a>  <a href="http://www.jisa.rs">www.jisa.rs</a></p> 	<p><b>Slovak Society for Computer Science – SSCS</b>  KI FMFI UK, Mlynská dolina  SK-842 48 BRATISLAVA, Slovak Rep.  Tel. +421 2 6542 6635 Fax +421 2 6542 7041  e-mail: <a href="mailto:SSCS@dcs.fmph.uniba.sk">SSCS@dcs.fmph.uniba.sk</a>  <a href="http://www.informatika.sk">www.informatika.sk</a></p> 
<p><b>Slovenian Society INFORMATIKA – SSI</b>  Litostrojska cesta 54  SLO-1000 LJUBLJANA, Slovenia  Tel. +386 123 40836 Fax +386 123 40860  e-mail: <a href="mailto:info@drustvo-informatika.si">info@drustvo-informatika.si</a>  <a href="http://www.drustvo-informatika.si">www.drustvo-informatika.si</a></p> 