



Edition No.8

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# COMPANY PAPERS

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# Hot Spots on the ITC Map

Stepping in the 2<sup>nd</sup> half of 2012, fresh data and challenging subjects were brought at our Codespring Company Papers publishing team.

The current edition highlights the engines that propel the CEE IT market to the top of software development and ITO destinations. In such context, this time we chose to discuss about the Outsourcing industry itself and about the Romania's place on the market. Harsh competition with some of the well established outsourcing supplier countries, like India, is to be taken under magnifying glass. As a focus point, we have resumed Liferay Portal 6.1, one of the leading free and open source enterprise portal offering integrated web publishing and content management. A more reflective article on educational software closes the edition.

In a rapidly changing environment it is recommended that you always pin-up on your options map the hot spots of doing durable business. The message for this summer is to always keep an eye on the business dashboard, as new opportunities and solutions may be right in front of you!

**Codespring Team.**

## Five Tire-Melting Engines of CEE IT Market

Between 2012-2014 the Central Eastern European (CEE) IT markets will register at least a double growth rhythm in comparison to the GDP growth rate of the area, minimizing the difference to western countries. Surging interest for mobile technologies and cloud computing and absorption of non-refundable European financial grants will push the IT market growth in Romania as high as 12.7% in the coming years - a recent study by Erste Group reveals, based on data from the European IT Observatory. IT spending will grow by 8 to 15 percent in 2012, especially in countries like Poland, Romania, Bulgaria and Croatia. Factors that will generate the growth of IT budgets are related to the need to reduce costs and increase operational efficiency, but also the need to increase labor mobility and flexibility of IT systems in general. Another indication of the study is that this favorable context opens the opportunity of a new wave of mergers and acquisitions, especially among small IT companies that are flexible and rapidly absorbing the new technologies.

### Growth generating factors

While Western European markets experience a static evolution, Erste analysts consider that in CEE businesses are more dynamic and therefore more willing to invest in IT. Therefore, in 2012 expected increase in the IT market is forecasted to stand at 7.8% in Poland, 10.1% in Croatia, 12.7% in Romania and 15% in Bulgaria. Erste Group officials involved in the study found that a major factors contributing to the IT market increase in the CEE region are:

- a) fundamental factors (structural and cohesion funds, public projects for legal compliance with the EU accession);
- b) technological factors related to current industry trends (cloud computing and service-oriented IT, mobility, new generation communication networks).

Add to this the constant need for efficiency and cost reduction and compliance with industry standards or management of large data volumes. Also, many companies will be eager to gain market share rapidly amid recovering market conditions and therefore engage to invest in IT tools to achieve these objectives.

**Cloud Computing (CC)** is an area especially attractive for small and medium enterprises (SMEs) and start-ups. The central idea behind cloud computing is accessing an IT system (applications, platforms, infrastructure) on a monthly subscription basis, eliminating the need for high upfront investments (licenses, equipment, consulting) that are somewhat inaccessible for many companies in the SME category. Due to lack of capital, these companies will be attracted to the cloud model and will generate significant service level revenue increase. Since the SME segment is the core of CEE economies, accepting the concept of IT as a service should have an impact on the market increase.

**Mobility and new-generation communications networks.** Telecom operators in the region are very dynamic, therefore state-of-art and networks are on hand. Telecommunications costs are low and therefore accessible to a wide range of users. Also, sales of smartphones and tablets are growing in most markets. Official figures show that mobile phone penetration rate is at 82% and mobile data is growing exponentially. 26% of mobile devices sold in Q3 2011 were smartphones. This conjecture provides major opportunities for developing mobile applications, video streaming, machine to machine communications and mobile payments.

**Need for efficiency and operational costs reduction.** Many companies in the region have developed naturally in the pre-crisis and now they need the tools to effectively manage an activity not very well optimized. Therefore, it is necessary to implement management solutions to provide the relevant information in real time and to support decision-making.

**Structural and Cohesion Funds,** are the main financial source of public projects in most countries in the region. Even if funds are granted throughout a number of years, the amount of money received is impressive and of impact on the IT market. For Romania, Erste study recalls the figure of EUR 252 million.

**Acquisitions and mergers.** According to Erste analysts in the region, IT companies dispose over a very good financial situation and very little debt, therefore, given the availability of capital to key players, we see a series of acquisitions and mergers that will have a positive influence on the market. According to the study SAP, HP, Oracle, Google, Software AG, IBM and Asseco can be serious potential buyers.

### Entrepreneurship in the CEE region

The current ascending IT market trend will most likely trigger foreign investment interest and boost local entrepreneurial activity in the CEE region. Recently Intel Corporation has opened a R&D center in Romania, Intel Romania Software Development Center, employing 350 IT specialists for open source software development. Moreover, SAP AG, in a partnership with Samsung, has joined forces between subsidiaries in Romania to promote business and mobile applications locally.

Romania ranks second in the CEE for entrepreneurial intentions in 2011, with 24.7 points, according to the Global Entrepreneurship Monitor (GEM) 2011 Global Report. Latvia ranks first with 24.8 points. Romania is followed by Poland, Hungary, Croatia and Slovakia.

### IT Salaries in Romania

Key considerations regarding the Romanian IT market growth show that the IT industry is defying recession with success. IT is the only industry registering an increase in the

number of employees during this period. Presently Romania employs 28.400 IT specialists, 30% more than at the end of 2008. Moreover, IT salaries have increased by 54% since the beginning of the crisis, because IT products are sold well abroad, and the state offers tax incentives to employers who recruit software developers. So far, average wage in this sector reached EUR 870 net, being 2.5 times higher than the national average, according to data from National Institute of Statistics.

In 2011 the number of employees increased slightly in the telecom sector as well, but employers are mainly looking for software developers for smartphones (offering salaries between EUR 800 and 1000) or network engineers, for which salaries start to EUR 600.

Salaries in outsourcing vary widely depending on the number of languages known: if those who know English only receive net salaries starting at EUR 400, those who know a Nordic language, for example, in addition to English, can win over EUR 1000.

The gross average wage in Romania was up by 3.3 percent in March this year compared to the same month of 2011, to EUR 487, according to data from the country's Statistics Institute (INS). Net nominal average earning was EUR 353, up from previous month by 4.8 percent, the highest values being recorded in the tobacco industry and lowest in hotels and restaurants, according to figures announced by the National Institute of Statistics. (T.Sz.)

Country	Perceived Opportunities	Perceived Capabilities	Fear of Failure	Entrepreneurial Intentions	Entrepreneurship as a Good Career Choice	High Status to Successful Entrepreneurs	Media Attention for Entrepreneurship
Bosnia and Herzegovina	20.5	48.9	30.5	17.2	82.2	71.0	42.7
Croatia	18.3	49	34.3	17.9	65.3	46.9	40.9
Czech Republik	23.9	39.2	34.6	13.9	-	48.7	-
Hungary	14.2	40.0	34.9	19.5	53.7	78.2	33.8
Latvia	23.6	46.5	41	24.8	-	-	-
Lithuania	23.2	35.4	39.9	16.8	-	-	-
Poland	33.1	52	42.9	22.7	72.9	64.4	58.0
Romania	36.1	41.6	36.1	24.7	67.9	69.4	56.7
Slovakia	23.1	52.9	31.8	17.8	54.6	64.4	55.1
Slovenia	18.4	50.8	31.1	9.2	53.7	69.7	45.1

Table 1.: Entrepreneurial Intentions, Perceptions and Social Attitudes in 2011. Source: GEM 2011 Global Report.

# Outsourcing – an Industry to Make Romania India's New Rival

A commonplace business tool, an operational strategy, the industry of the 21st century: it's all about outsourcing. In a world of global relationships outsourcing addresses the increasingly competitive market demands for cost-effective, better and faster services. Companies of different size and from various sectors have access to the global supply pool.

A recent report conducted by the Corporate Executive Board revealed that outsourcing is the fourth most common restructuring activity that the surveyed companies plan to implement in the coming year. Moreover, outsourcing helps companies to overcome present economic recession by creating jobs for young, flexible graduates. In view of that, companies practice a more efficient allocation of work from a cost perspective. In the long run, increased trade will create new jobs that will outweigh the job losses incurred in the short term. This way, outsourcing enables companies to develop competitive advantage in other areas. In addition to this, enterprises can better cope with and capitalize on changes in their industry. But where exactly to address on the global market for outsourcing services?

## World's Top 10 Outsourcing Destinations in 2012.

Romania is included in the top 10 emerging outsourcing destinations in the Outsourcing Business supplement distributed on June 11th, 2012 by The Times Magazine, in association with the National Outsourcing Association (NOA). Wage inflation and rising staff attrition are undermining India's outsourcing attractiveness and direct global outsourcing attention towards other destinations of choice. Other nations are seeking to grow their participation on the \$370 billion outsourcing market. Romania is ranked 6th globally in the Times Outsourcing Business supplement, preceded by Jamaica, Chile, United Kingdom, Ghana and Poland, and followed by South Africa, Russia, Vietnam and The Philippines. The Times report points out that although it may not seem an obvious choice, Romania has an ever increasing reputation as an attractive

outsourcing destination and the country in becoming leader in IT outsourcing, particularly for chip design, embedded software and information security. With more than 100 universities, Romania is renowned for its high quality labor pool with language and mathematics skills in abundance.



Figure 1: Top 10 Outsourcing Destinations in 2012. Source: Times Outsourcing Business Supplement, June 2012.

## Romanian IT&C Facts and Figures

According to a study made by the National Institute for Computers, published by Mircea Vuici this month, Romanian IT&C industry is expanding on a positive track: the IT sector (software and hardware services and electronics) followed a strong upward trend in the years 2010 and 2011, however, Romanian telecommunications sector showed significant attenuation of contraction. Total turnover of ICT has increased by 8% in 2010 and by 2% in 2011, recovering the contraction from 2009 and returning to the amount of EUR 9.4 billion from 2008, the year before the crisis. Production and services sector had a similar development. Total IT&C and exports continued to grow throughout the crisis and post-crisis amounting EUR 4.7 billion, exceeding by 55% the 2008 level.

Growth was mainly determined by the hardware and electronics sector, where exports have doubled, but software and services sector contributed to the expansion as well, showing an increase by 37%. The number of total IT&C employees has stabilized at 119.000. Overall positive dynamics is the result of uneven development in the three sectors of IT&C



affected differently by the domestic and external demand.

### Geo-Distribution of Romanian IT&C centers

**Bucharest.** The capital city occupies the pole position in the Romanian IT&C industry, giving 67% of the country's turnover, 56% of the number of employees and over 60% of the GDP contribution of all three subsectors - software and services, hardware and telecom. A drop of 10% in the contribution of Bucharest to the industry turnover during the last two years is a clear indication that the capital loses ground in favor of the North-West region. 27 of the 30 biggest companies in software and services and 190 of the 290 companies with revenues over EUR 1 Million are based in Bucharest; the city is home to local companies, integrators and solution providers, as well as support and R&D centers of IT multinational companies

**Timisoara.** R&D activities in Continental Automotive (+50%) contributed to the IT sector expansion of the city. Add to that the activity of software development and outsourcing companies of AICI Worldwide, Saguaro Print, OCE Software, Internet Marketing On-line, Berg Computers.

**Cluj.** After Bucharest, Cluj is the second city by the number of software and services companies based here; also, the share in the total turnover and the number of employees in the sector has been growing over the last years. Interest of large foreign companies for software services remained strong in 2010 and 2011.

Corporations opened new R&D centers or expanded existing ones. The most important are: PGP Corporation (data protection and security software), HP software development center, Genpact opened a second office for BPO services, ING shared service center, Office Depot service center, Evalueserv, Sykes, SAP. The year 2011 was marked by the first closing of production facilities and services (Nokia factory in Jucu, R&D unit of Nokia service center in Cluj and ING Cluj service center). In all these cases the causes are not related to the local context, as these decisions have been dictated by changes in regional or global strategy of the respective companies.

### Lessons learned from the downturn

"We have come to understand that cost controlling is a major asset in strategic outsourcing partnerships. Specially, in times of global recession, when orders for development processes are maintained constantly, but payments follow the client's income inflow and delays are normal amid standstill trading conditions. Furthermore, we eyed beneficial schemes and structural funds and started exploiting them."

### Major risks for H2 2012

"Demand for Romanian software outsourcing services surges and local IT market continues to expand. However, fear persists about the sovereign debt fueled financial market turbulence from the European Union, which is a major market for us. Investor confidence is at stake, and we all know what that means in terms of business perspectives."

### Planning for the future

"On the long run, Codespring is determined to become a leading software development and outsourcing company on the CEE market. Therefore, we will continue to expand on the European and American markets and initiate strategic partnerships. To reach that goal, we are permanently enlarging our talent pool and welcome new engineers in our team. Customer satisfaction is important for us, and this is possible only with a professional and motivated team on board."

Walter Brem

COO Codespring  
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**Iasi.** Although in 2010 the number of employees of the sector was on the rise, compared to 2009, the revenues decreased by 10%. Some of the local companies have experienced difficulties, but they were compensated by a better evolution of development and support centers opened in the last years: Continental Automotive, Capgemini, Genpact and Amazon. (T.Sz.)

## Liferay Portal 6.1. – A Piece of Mind

Liferay Portal is a leading free and open source enterprise portal written in Java. The framework offers integrated web publishing and content management and is compatible with all major IT infrastructures.

Liferay is a professional open-sourced company specializing in enterprise portal technology, with headquarters in Los Angeles, California, United States. The company was founded in 2000 by Brian Chan with the aim of providing an enterprise portal solution for non-profit organizations.

Liferay's flagship product is bringing a plethora of new features and enhancements for both end users and developers. Let's take a sneak peek at what new improvements has the company made on its world leading product.

### Greatly Improved Document Library

Striving for an optimal user experience, Liferay 6.1. offers a totally new redesigned UI, with multiple repositories. Users may mount additional repositories while maintaining a common UI: Liferay, CMIS, Sharepoint, Documentum or Alfresco. In addition to this, multiple repositories allow users to reuse existing Document Management Systems or even to combine them. The improved document library enables unification of the Document Library and Image Gallery into a single unified library (documents, images, videos or other media files can be stored at the same place). Specialized applications will be available to publish specific media types in site pages.

### Enhanced Publishing and Site Management

Improved management of staging through the top bar made simultaneous modification of several site variations possible: multiple teams may work simultaneously on different versions of the site (e.g. a version for Christmas and a version for New Year's). So each variation has its own set of pages and share the content. What's more, the scalable and robust staging is optimized for sites with over 100k pages. Greatly enhanced staging enabled preview of the site in the future based on scheduled publications and automatic versioning and undo levels for pages. Sites are to be customized by users. Site administrators

may designate certain pages and areas of pages to be customized by end user. A given user's changes are not visible to other Site members. Portal administrators are able to control user pages: portal administrators can master what users can do in their personal pages, including which portlets they can add to their pages.

Due to improved site management, page and sitemap is editable in a pop-up so that the context is not lost, administration of all types of site content is made from its own page. By using this feature the need to go to the Control Panel and thus to change the visual context is avoided, as well as the need to decide upfront whether to create organization sites or community sites. Accordingly, enhanced site management resulted in unified management of all portal sites, allowing linking or unlinking sites to user organizations at any time. This way, by expanding the use of site templates, creation of community sites, corporate sites, event sites has been very much simplified.

As for the improvement of configuration management, please note that archived portlet configurations can be added as an application. Thank to easier multi-language sites, web content title and description is also translatable. Content publishing is now made simple: users will be able to select or create specific content types from the dockbar. This way, forcing the user to add an application (such as Asset Publisher) and configure it in order to publish content, is avoided. Improved taxonomy support makes it faster and easier to use UI for end users and administrators, allows entering title and description for vocabularies and categories in multiple languages and provides support for single-valued and multi-valued categorizations.

### Enabled Online Application Building

New capabilities and enhancements include workflow-driven, user-defined forms and data lists. Users define custom entities to store into database, forms to capture custom entities and user interfaces to display custom entities. Users can create web forms that submit directly into lists, making it easy to gather survey results. Workflow aware forms will allow online creation of applications based on forms and



workflow, flexible web form with multi-step capabilities and offer full support of custom defined workflows. Therefore, users can implement business process with no development. Liferay 6.1. implements the new version of OpenSocial standard, which is specially relevant to SaaS –like offerings Communication between Gadgets and Portlets happens via events, while online gadget building is made with Mashups.

## Codespring Expertise in Liferay

**Project abstract:** Helix3 Program management;

**Client:** P92 IT Solutions, HU;

**Industry:** HR;

**Type of work:** full SD life cycle;

**Duration:** 2 years and ongoing;

### General description:

Helix3 main goal is providing a solution for managing programs within large companies. Programs can be of 3 types, served by the 3 main modules of the system: Recognition, Sales Incentives, Learning. Each program can be associated with a budget (of points) and each user activity may be rewarded with points. These points can be redeemed with the help of GO2 system to products or services. An important part of Helix is the communication with external systems: Moodle – learning system; GO2 – points redeem system; EMP - email marketing system.

**Environment:** Java (JDK 6);

**Application server:** jBoss 5.1.0;

**DB server:** Microsoft SQL Server

### Development tools:

IDE: Eclipse

Version Control: SVN

PM, task/bug tracking, automatic builds:

Atlassian Jira, Bamboo,

FishEye, Confluence

### Technologies/Frameworks used:

- Hibernate 3.2.4
- Struts 1.2.7, JSTL, JSP
- jQuery, Ajax + Json, Servlets
- Liferay 6.0.6, Portlet Specification: JSR-168
- Axis, Batik, Velocity

### Development rules:

During the development phase there is a special importance granted to a perfect architecture, to follow the established guidelines and to remain consistent in the solutions applied.

## Improved Social and Collaboration Tools

User experience is at the forefront in the Liferay Social Collaboration Suite. The Contact Center is integrated with other collaboration suite elements (Social Office). The Microblog provides you with short status updates of your followers. Tagging is also enabled. Users can keep up less intrusive relationships: Microblog allows confirmation-less following and banning of followers, being integrated with Contact Center for ease of management. Private Messaging is the primary communication mechanism within the portal: you can quickly share links to documents, blogs, etc. with contacts; there is an option to integrate it with email or maintain “anonymity”. Users will find a completely new, Google calendar like UI for management of events. The redesigned calendar portlet is available as a plugin as 6.1. Message Boards provide full HTML editor support and dispose of improved BBcode editor. Liferay 6.1. provides Improved out of the box support for new generation devices (iPhone, Android, iPad).

## Platform and Development

RESTful Web Services is an additional web services layer to complement the existing options (SOAP, JSON+HTTP). It is based on the Atom Publishing Protocol with Gdata extensions and allows Internet-size usage of web services. Liferay Portal will be able to act as an SSO provider for all applications which will be achieved by implementing the SAML standard (Liferay as a SAML 2.0 Identity Provider). The implementation of OAuth allows applications to connect with third party resources without making the user disclose their credentials.

Improvements brought by Liferay 6.1. resulted in easier and more powerful Liferay IDE and Liferay Developer Studio. Sandbox Development Environment uses the benefits of PHP like development within Liferay. Improved documentation consists in expanded Developer’s Guide and improved Javadocs. Reference documentation is available for for all configuration files and taglibs.

Liferay is willing to invest heavily on continued improvement of the existing tools; social collaboration and content management will undergo huge improvements; significant new features will be developed to ensure faster ROI. (T.Sz)

## Educational Software – a New Learning Way

Certainly we are aware that digital technology has influenced educational activities in the XXI century. There are specific computer software designers to teach or to help self-learning. Today they are referred as “educational software”.

Did learning activities improve since we started using this tool in various educational environments? How does this affect our learning style? There is a big dilemma about the extent at which institutions and organizations should incorporate software in the learning process. This is exactly why we chose to bring on the table this subject.

### The Initial Intention

At the beginning it was all about a new way of delivering content. As PCs became more affordable, delivering course materials on CD-ROMs was a very practical method of distribution. *Reference software* (electronic encyclopedias and dictionaries) began to spread. Next, the idea of testing knowledge and skills in a comfortable, quick and paperless way propelled the evolution of *assessment softwares*. As information technology has made huge steps in the last decades, there was a time for *classroom aid software* to develop.

Gradually, from the genuine intention of delivering content at its best, we found ourselves in the middle of *complex virtual learning environments*. Some projects are designed to respond to real needs, while others tend to be more imaginative and strive to revolutionize the learning process.

### What Must Be Considered in the Equation?

While debating the educational software’s role, we found out that each of us was looking at it from a different perspective. A student preparing for an exam would probably fill in tests on a laptop in his room or in the library. A young doctor would probably try a body investigation assisted by simulation software and his professor. A teacher would deliver a course in the classroom via a main screen and a desktop network deployed in the room. A pilot would practice movements and how to master airplane controls on a complex simulator with customized software and hardware.

Three elements dominate the realm of educational software: the place, the software

and the individual. What about the mediator between the three components?

### Redefining Roles

Yes, the roles have been redefined. One of the most attractive promises of educational software is that it can support *autodidacticism*. In order to achieve that, the person willing to learn by himself should have appropriate computer knowledge and a good sense of own-time management. But can the autodidact take advantage of the benefits that a live instructor, a teacher or a professor delivers?

Some would argue that performant software will deliver feedback by assessing your own performance and may have incorporated some recommendations. To some extent that is useful, but we must admit that the answer to our question above is: No. The amount of information you can receive from a person observing and assisting you during certain phases of the learning process is unpredictable.

This is where many incipient educational software systems have failed. The attempt to introduce the digital technology into educational institutions and corporate learning centers disregarded the need of appropriate training for teachers, instructors and other facilitators. Profound knowledge of hardware, high level use of software compiled with excellent mastery of teaching methods are now appreciated and mandatory.

### Better or Different?

In the learning process we are all simple students. Can we really improve it by using a tool like educational software? Recent researches strive to evaluate the impact of the digital technology on our way of learning. As results are still intermediary, what has been noticed is a morphose of the interactions between people and software, between people themselves and between people and environments.

The latest virtual reality tools, 3D systems and simulations bring a huge step in the skills development process. Yet, is it beneficial to plunge children into specific software tools since their early pupil state? At the moment, we are still facing a profound generation gap: today’s children grow with

## THINKING POINT

internet at hand, social networks by default and a hyperconnected world. Different approaches towards the ingestion of current educational software reveal different opinions and real issues that education is facing.

A common fact is also that computer softwares designed for education have continuously been improved. Previous negative or less satisfactory experiences cannot stop researchers and supporters pursuing their work. Often expectations must be flattened and adjusted to the conditions *de facto*.

The wide spectrum of learning tools that are

available now, leads us to suggest that educational software provides a different way of learning. It can be better when used in accordance to the context and the individual.

### Specific Purposes

Being a different type of education tool, educational software are tailored for specific areas. There are software designed to help you learn anatomy; others designed to help you learn geography, history, astronomy, literature, art and culture; there are customized softwares for helping you gain music or graphic skills and knowledge.

A booming segment is the “edutainment” field – in other words “educational entertainment”, “serious gaming” or any entertainment designed to educate and to amuse. Educational content is presented in an embellished and more polished manner. Interactivity is stimulated by the principle of having fun while learning.

Accessing remote audience and isolated groups has also grown into the online learning methods or e-learning. Courses, tests, simulations are being delivered slice by slice to the student. This way, pre-scheduled learning programmes may be set, helping users to avoid being overloaded or too lazy.

### Tomorrow Compliant

Probably one of the greatest shifts that the education environment had to make is to prepare systems compliant with tomorrow needs. Consistent research is being led in order to set the appropriate systems and equipment. But the gap between the pace of software developments and the rate at which institution and organizations can gear their learning centers is quite large.

“What to choose? What to buy? When to invest?”. Again, the role of the Chief Information Officer in educational institutions will take a great part. Introducing recent technologies and preparing the necessary equipment will be crucial for their attractiveness and preparedness for embracing the new generation.

The responsibility of the future generation belongs to everybody. Educational software developers and institutions must involve visionnaires in this process as they are able to depict future possibilities. Different education will lead to different situations that will evolve into different interactions. (D.C.)

### Codespring Expertise in Education

Education systems and tools changed dramatically in the past decade. In the spirit of the time, Codespring overtook the responsibility of developing some software used in education organizations management. The work deals mainly with processing and storing personal data and information about students and teachers. Communication of official documents and automated data analysis were another concern.

### Challenges of The Education Industry

Education currently faces the effect of a quicker pace of learning and sharing information. Students are taught not how to store and use, but how to search, find and use information. Many active learning applications are being developed, challenging the visual and motric abilities of any student. Definitely education systems are to be redefined in the coming half of century.

### Education Work Examples:

The **KPIOR** is an application manager system. It includes a well-defined security level for the stored information. The information about candidates and their work as well as the application data is stored in a database. This application works as a filing system, stores the professors' academic performances for example publications, conferences, exhibitions, patents, etc. The research and fellowship application considered by external experts and the Scientific Council decides about the awarding of grants.

## Surging demand for IT goods in Romania in Q1 2012

June 2012

In the first quarter of 2012 Information Technology goods followed an ascending trend on the Technical Consumer Goods (TCG) market in Romania. The sales value of the Information Technology sector in Romania increased by 3.2% in Q1 2012 compared to Q1 2011, reaching the amount of EUR 101 million – according to findings of GfK TEMAX® Romania.

Mobile computers and tablets were the driving force of this sector. Tablet sales experienced significant growth over the last few quarters, thanks to their features and assets: compact, easy to carry, and the high autonomy of the battery..

## Liferay Symposium for the CEE

May 2012

Codespring has attended Liferay's Symposium for the Central and Eastern European region held in Budapest, Hungary on May 17, 2012.

A few words about the event: On the agenda we have found mainly business and technical tracks, sessions, and presentations by key Liferay leaders. Most interesting, we have learned about client case studies highlighting how Liferay has provided solutions for their organizational needs.

This year's theme was The Liferay Platform. According to the official invitation "Liferay provides the market's leading open source portal platform, used for a wide range of solutions. Last year's release of the Liferay Portal 6EE has enabled our customers, partners, and the wider community to expand our footprint among enterprises worldwide. With a solid

architecture, flexible deployment options, advanced social networking services, and a growing marketplace for extensions, Liferay is becoming the de facto standard for enterprise web development. The symposium focuses on that expansion, with session topics that address the expanded role of the Liferay Platform as a basis for the next generation of web applications and services".

## Codespring at TDC 2012

May 2012

Today, 15th of May 2012 and tomorrow, 16th of May 2012, Codespring will meet you at TDC (Targul de Cariere) 2012 spring edition. Location: Casa de Cultura a Studentilor , Cluj-Napoca (Cluj-Napoca Students Hall). Fresh jobs, fresh approach – everything to make you find out more about us and our way of working. You are welcome to visit us at our stand and to leave your CV each day between 10.00 a.m. and 04.00 p.m.

What should you look at?

This time, Codespring has structured a customized program for any of you! Our organization is growing day by day and we want to make sure that everyone fits well in the structure.

For Students: You are a software development enthusiast and want to find your way in the industry? [...].

For Junior Software Developers: You are just starting a career in software development? [...].

For Expert Software Developers: You have already hands-on experience in software development and you master well your knowledge? [...]

For Leader Software Developers: You are an expert and are good at motivating and managing people? [...]



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