In Europe, and in the West in general, young people often have stereotypical and unrealistic views of science and technology careers. They perceive jobs in the science, technology, engineering and mathematics (STEM) sector as dull, difficult and short on opportunities for creativity and team work. This perception is far from reality - for instance engineers report high levels of satisfaction in their jobs, and information technology (IT) experts enjoy applying their specialized knowledge to solving people’s problems whether in health, education or communication. And in today’s troubled economy, there is evidence that those qualified in STEM fields have much better chances of getting and keeping well-paid jobs - a crucial point when considering that youth unemployment is at 30 per cent in some European countries.

So how can professionals in STEM fields help change young people’s attitudes? One of the major factors is the influence of key adults - teachers and parents - who help youth make decisions about which subjects to study, and what kinds of jobs to aim for. Another key point is to give young people more realistic views of STEM, whether at school and in class, through extra-curricular activities such as science fairs, or by informal education. These experiences can help them better understand what STEM really involves and that it can open up immense opportunities for future careers in research, industry or business.

In this Ecsite Quarterly, our contributors bring a variety of perspectives to the STEM career challenge and highlight how a diverse range of stakeholders each have a role to play. All sectors relevant to STEM in young people’s lives are pulling together for a coherent approach to tackle misperceptions about STEM studies and careers. Science centres, industry, educators and associations are developing innovative partnerships and approaches, each drawing on their own strengths to make STEM experiences for young people more exciting, realistic and compelling.

Key to all these initiatives are sustainable partnerships at national and international levels; whether through established networks such as Ecsite and European Schoolnet, or more recently with InGenious - European Coordinating Body for STEM education, which links major industry partners, ministries of education throughout Europe and STEM stakeholders. Sustaining these types of partnerships is crucial to supporting young people as they prepare themselves to face the future and tackle the social, environmental and economic challenges awaiting them.

Alexa Joyce is the guest editor of this edition of the Ecsite Quarterly Newsletter.
Industry, youth, and science careers: Challenges and opportunities

An interview with Cecilia Warrol Ersson, Director, The Swedish Association of Engineering Industry, Stockholm, Sweden

Q: Attracting young people to future careers in science, technology and engineering is one of your main objectives. Why?
Sweden is very much dependent on technology-based industry: More than 75 percent of our exports come from technology products and services. Sweden is also a high cost country with a high standard of living; this entails being dependent on high-value industries - from complex research and development to advanced manufacturing and selling high tech products and services. In this context, engineers, researchers, scientists, etc., are of great importance to our society - partly to ensure that most people leaving the job market are replaced by someone with higher education - but also because technology sectors are increasing in our country: Information and communications technology, transportation, energy, etc. These sectors need many science, technology, engineering and math (STEM)-educated people, as well as the civil service sector where the complexity of maintaining and developing transportation, communication, health, energy, energy, and water - among other things - calls for scientists, engineers and technicians.

Q: What are the main obstacles to young people choosing careers in STEM?
To our knowledge, after decades of working with education policy, the main obstacles involving STEM and young people's choices is that the education system of today cannot possibly keep up with the fast-paced, high-tech society in which we live. It is also difficult for schools to point to STEM subjects as the solution for many of the great challenges of our time such as climate change, energy and health. Teachers are very often poorly equipped and poorly educated (especially in technology - a compulsory subject in Swedish primary and secondary schools since the 1980s) to enthuse young people about STEM and to point to STEM careers. Some solutions are at hand today as two of Sweden's top engineering schools (KTH School of Electrical Engineering and Chalmers University of Technology) are educating a combination of engineer and teacher - turning out skilled teacher-engineers who can teach in secondary school and upwards. Young people choose education and careers out of interest; STEM is often fun and interesting up until middle school, but teenagers are not exposed to the inspirational type of STEM education they ought to have.

Q: What value do science centres and museums bring to promoting careers in STEM?
Science centres and the like are mostly focused on the natural sciences such as nature, space and the human body. I have not encountered a science centre that actively promotes STEM careers. Science centres do a fantastic job giving young children a language and feel for STEM, but a one-off at this when a person is six to eight years old does not make much of a difference. If science centres are to be valuable in solving the STEM workforce challenge, they need to be more active in the whole education system as well as offer activities close to STEM curricula. For this, science centre staff need a higher awareness of STEM workforce challenges and more knowledge about STEM careers. I believe that science centres have great potential to support STEM education as well as teacher training.

Q: How could science centres improve their efforts to promote these careers?
Science centres could easily collaborate much more with local technology companies and facilities. If there is a water treatment plant, an energy provider or a chemical or ICT company in the vicinity, the science centre can make much use of this by “translating” various processes for educational purposes. A science centre can also invite local scientists, engineers and other STEM professionals to inspire students and children.

Q: What would the ideal collaboration between science communicators and industry look like?
As industry and tech companies are very competitive today, there is little room for ad hoc collaborations. So for a successful industry-school collaboration there needs to be a systematic approach to maximize the use of industry. For example, an engineer has very little use for promoting STEM to six-year-olds. Science centres can be used to promote STEM as well as the context and scope of local industries and STEM careers to young people up until the early teen years. However, direct contact with industry and STEM careers play a more important role in higher as well as vocational education.

There needs to be a “quality check” as not everything or everyone from an industry fits into an education situation. In Sweden there is a great network called Transfer which connects STEM professionals as inspirational speakers with high schools.

Cecilia Warrol Ersson

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Infrastructure for future scientists and engineers

By Michał Dżoga, Corporate Affairs Group, Science & Entrepreneurship Europe, Intel Corporation, Poland

As Europe’s economy grows and competitiveness relies increasingly on innovation, many companies and governments are realizing the necessity for securing a high quality pool of future scientists and engineers.

The replacement needs of the retiring workforce and greater industry demands are not being met by the number of science, technology, engineering and math (STEM) university graduates. More and more young people are pursuing non-scientific careers. We ought to realize that the shift required to correct this imbalance will not happen overnight. In order to reverse this trend, whole sets of well-coordinated actions from many stakeholders are required. There is a role for everyone at all levels: Governments, non-governmental organizations, science centres and museums, businesses, media, schools and parents.

There is a growing view that we need to influence students from kindergarten to university.

Young people who have already chosen non-scientific routes are unlikely to change direction. Nevertheless, we still need to understand and address the university STEM fields’ dropout rate, especially in the case of women. From this perspective there is a strong call for action for teenagers who haven’t charted their career paths. It won’t be easy, though, as today’s youth have been brought up in environments that often favour service-based jobs to engineering and science pursuits. But as youth unemployment rates in Europe reach record highs, young people may become more open to new possibilities - including careers in STEM.

One of the powerful tools supporting this goal is pre-college science competition. Europe is quite privileged in this context as such programmes are currently being run in most European countries and in some for more than 30 years. Young people, encouraged most often by their teachers, work on scientific projects and attempt to prove their research thesis over a period of many weeks. They later submit their work to science competitions. If they score high enough, they advance to national level, in most cases having the opportunity to showcase their project outcomes in front of wider audiences. The “best of the best” usually make it to international events, such as the European Union Contest for Young Scientist (EUCYS) or to the long-running and largest global pre-college competition called the Intel® International Science and Engineering Fairs (Intel® ISEF). The recognition young people get in these competitions increases their confidence so they are more likely to pursue a science or engineering path.

A big challenge, however, is keeping students focussed on STEM even if they don’t qualify in competitions. Even more difficult is how to reach students who haven’t expressed interest in STEM at all. Enter the education system and science centres that can introduce content to help students experience the beauty of science with their own eyes. Introducing teachers to a new role - not as the ultimate sources of knowledge - but as guides for young people on how to select information and formulate conclusions. This is the essence of inquiry based learning. Twenty-first Century skills like computer literacy, critical thinking, collaborative abilities, problem solving and open communication are crucial for success in any job in today’s world.

Once they are acquainted with project-based learning and equipped with the necessary skills, students are more likely to be tempted to go further with exploring different career possibilities. That is why catching their attention with STEM early on is so important. An example of a good practice is collaboration between national STEM fairs and science centres; properly showcasing young peoples’ work at a professional venue not only gives them more reasons to be proud of what they do, but also triggers public interest and media attention. In countries such as Ireland, Portugal and the UK, science fairs have grown and transformed into science festivals which are able to engage NGOs, businesses, government officials and thousands of visitors.

In many countries, though, science fairs are being run separately without any collaboration with other organizations. This is a lost opportunity, as single institutions are often less powerful when working alone. Synergies can help achieve the goals of each contributor. Only by combining the efforts of STEM programmes and institutions can we build the infrastructure to inspire future generations of scientists and engineers.
How corporates can stimulate STEM education

By: Kirsten Panton, Western Europe Lead
Partners in Learning, Microsoft, and
London, UK

A growing innovation digital economy is both the lifeline and the product of high tech companies such as Microsoft which, in turn, can only survive if they ‘send the elevator down’ to foster creativity and innovation among the next generation. How might this be done?

As schools face ever tightening budgets and the pressure to innovate, we are seeing only 14.3 of 1,000 young people ages 20-29 studying scientific and technical subjects at the early tertiary level (EuroStat 2009). Unique approaches to learning must be implemented to redirect this trend and inspire students to become more than information consumers, but creators. Students need to know how to communicate and collaborate with others; new technologies have the potential to transform this skill-building process.

The seam between education and industry must be more tightly woven to the demands of the labour market for information communication technology (ICT) savvy and highly skilled workers in order to keep Europe on the innovation map. China has plans to increase the share of those with higher education in the workforce almost tenfold from 4.66 per cent in 2001 to 44 per cent in 2050 (Business in the Community). These global forces of competition mean that developing young people's skills in Europe, namely in science and technology, is crucial to the continent’s economic future.

There is a critical space for corporates to come forward with innovative education solutions to support the traditional channels of formal education and drive more career interest in science and innovation among young people. This offers new opportunities for partnership. Here are some solutions Microsoft has pioneered in firm partnership with other companies, non-profits and the education sector:

• Driving STEM education:
The inGenious project brings together teachers and industry to excite students about science, technology, engineering and math (STEM). A key goal of inGenious is to identify and share teaching practices developed by industry to communicate the value of STEM and stimulate young people’s interest in STEM subjects. Industry visits, hands-on experiments, games and competitions are some of the tactics used. Twenty-five partners including BASF, European Schoolnet, Microsoft, ERT, Nokia and Shell, and 14 associated partners, are engaged to raise the bar in STEM education.

The DeforestACTION initiative, under the umbrella of the inGenious project and led by Geodan, Microsoft and TakingITGlobal, is a global platform of schools working collaboratively through technology to plan and organise ways to address global issues. The project unites youth through an online platform to prepare action plans targeting deforestation and to create a permanent habitat for orangutans and other species that depend on forest ecosystems.

Another fantastic example is the Swedish Maths Coaches project led by Microsoft and a collection of four Swedish universities which uses instant messaging as a means for trainee student teachers to coach and support math students in the evening.

www.ingenious-science.eu

• Championing the digital marketplace for sustainable good:
Imagine Cup, the world’s largest student technology competition, empowers young people to use technology to find solutions to real world issues and connect to the global marketplace. The 350,000 applicants from 183 countries in 2011 demonstrates the size of interest young people have in new technologies when applied to broad global challenges. This competition highlights the potential and impact that youth can have to generate creative and cutting-edge business and social enterprise technology solutions when engaged and supported in the right way.

For example, the 2011 Imagine Cup Winner, Team Hermes (Ireland) created an automotive monitoring system to help reduce road accidents and increase driver safety. Team Hermes went on to create a start-up called CleverMiles based on their project.

www.imaginecup.com

Another example is DreamSpark, a programme where students and educators...
are given free access to software and training that advance the learning and instruction of key technical skills at a critical time in a students’ development during the high school and college years.

www.dreamspark.com

• **Supporting the next generation of Girls in IT:** Microsoft’s DigiGirlz project gives high school girls the opportunity to learn about careers in technology, connect with employees, and participate in hands-on computer and technology workshops. DigiGirlz High Tech Camp works to dissolve stereotypes of the high-tech industry. The idea is to give young females a chance to experience, first hand, what it is like to develop cutting-edge technology.


We know that the European economy’s science and technology potential is somewhat latent with notable vacant opportunities in the labour market and the exciting ability the sector holds to define a new set of jobs for the next generation, e.g. in renewable energy and e-Health.

One of the most important actions industry and civil society can take is to provide access to STEM skills development for young people in order to close the “opportunity divide” which is so stark. Science and technology offer fantastic platforms to engage young people in domains that can help tackle economic and social challenges. More collaborative initiatives between industry and academia are needed to secure a bright future for our youth and, by extension, the future of the global economy.

Read more about Microsoft’s exciting initiatives in Europe: www.microsoft.eu/skills
The Engineer project: Inspiring future scientists and engineers

Ioannis N. Miaoulis, Ph.D, President and Director, Museum of Science, Boston, USA

Twenty-six institutions from 12 countries are developing innovative ways to excite children about science and engineering via the Engineer project, funded by the European Commission and coordinated by Bloomfield Science Museum Jerusalem in Israel. The goal is to introduce engineering to 27,000 students and 1,000 teachers in primary schools and museums in nine European countries and Israel, using the successful Engineering is Elementary® (EiE®) model developed by the Museum of Science, Boston.

In this project, teams of European science museum educators, curriculum experts, and teachers will develop ten design challenge units in ten disciplines which adapt EiE’s “engineering design challenge” feature to European contexts. Students will follow a five-step process to solve engineering problems from their daily lives such as designing an environment for a pet or improving a bicycle. Each mission will span this design process: Ask, Imagine, Plan, Create, and Improve. Each team will focus on one engineering field (civil, chemical, food, environmental, mechanical).

Why engineering?

While there has been considerable concern about the state of science education in the United States and Europe, most school science curricula have focused more on the natural than the human-made world. But it is the technological or engineered world that facilitates 95 per cent of daily life. Students spend years learning the scientific inquiry process to explore nature, but little or no time learning the engineering design processes that make life-enhancing technologies such as cars or computers. Understanding how the human-made world originates and works is akin to basic literacy.

The key to preparing students for careers - not only in engineering but also in science, technology, and math - is introducing them to the engineering design skills and concepts that lead to applying their math and science knowledge to solve real problems. This kind of application often fuels the innovation of new technologies. Early exposure to engineering can encourage students to consider the field as a career and push them to enroll in the necessary science and math courses down the road.

When the Museum of Science launched its National Center for Technological Literacy® (NCTL®) in 2004, Engineering is Elementary was one of its first products. As the largest largest elementary engineering curriculum in the U.S., it has reached over 37,800 teachers and 2.7 million students.

Engineering makes science and math relevant

Part of the problem is that students often lose interest in math and science in middle school because the curriculum seems disconnected from their lives. Engineering makes math and science relevant, which is particularly important for girls who tend to gravitate toward sciences that benefit society. Engaging students with engineering skills early on - identifying a problem, designing a solution, testing, and improving the design - offers a platform for applied and integrated learning not only in math and science, but also in communications skills, history, and social studies. Allowing for failure and hands-on activities, engineering opens doors for different kinds of learners from all backgrounds who can work as a team. A diverse pool of students must expand their conception of the field in order to widen the pipeline to engineering careers.

Using lesson plans, hands-on activities and storybooks, EiE reaches students from different cultures in grades one to five to solve problems using principles of engineering. The curricula integrate engineering and technology with subjects and activities spanning science, language arts, social studies and math. Analyses of EiE results have shown that both teachers and students have improved their understanding of engineering and science through involvement in the programme.

As the major driver of this engineering education reform in the U.S., the Museum of Science advocates the systemic inclusion of engineering into learning standards, assessments and funding opportunities. Engineering is rapidly becoming part of kindergarten to grade 12 education systems in the in the U.S. and engineering and technology standards are now being included in state curriculum frameworks. Federal legislation and national assessments now also include technology and engineering.

Museums and science centres are natural platforms to introduce reform

Through exhibits and programmes, museums can influence public understanding of engineering and its value, thereby helping people to accept curricular change. Museums can also organize partnerships that may include universities and other science education organizations to support the development of curricula and programmes for students and teachers.

The 20 science centres and museums and primary schools involved in the Engineer project are drawn from Sweden, Denmark, the Netherlands, the United Kingdom, France, Germany, Italy, Greece, the Czech Republic, and Israel. Engineer is led by Bloomfield Science Museum Jerusalem in Israel.

For more information about the project and its partners, visit: www.engineer-project.eu
**SCIENCE BEAT VACATION**
“Sommerviten,” VilVite’s annual summer school, offers a full week of science and fun for young people ages 12 to 16 years in cooperation with local school authorities. This year’s topics are archeology with a touch of CSI, design and technology, fossil fuels and maritime skills. Three courses gather more than 750 kids around science and technology.

Contact: Svein Anders Dahl, sad@vilvite.no
www.vilvite.no

**SCHOOL MEETS SCIENCE - “HOW DO LIFE SCIENCES CHANGE OUR WORLD?”**
At a series of symposia organized by Odysseum Science Adventure in Cologne, Germany, students get involved in scientific expert conferences on the latest topics in life sciences such as metagenomics and artificial design. In addition to getting insights into some of the most innovative and cutting edge research areas, students can also pose questions to experts and researchers.

Contact: Julia Schropp, julia.schropp@sk-stiftung-csc.de
www.sk-stiftung-csc.de

**THINKTANK SCIENCE GARDEN**
In defiance of the famous British weather, Thinktank opened its 2750sqm outdoor Science Garden gallery this summer in Birmingham, UK. Visitors explore energy, mechanics and the physics of transportation through exhibits in three zones. The exhibits link to the museum’s indoor collections and to the history and culture of Birmingham. For example, a propeller-powered merry-go-round gives visitors a feel of the forces at play on propeller planes such as the Spitfire fighter plane on display in the museum.

Contact: Clara Lim clara.lim@thinktank.ac
www.thinktank.ac

**THE CURIOSITY ZONE, LIFE SCIENCE CENTRE**
The newly launched ‘Curiosity Zone’ at Life Science Centre, Newcastle, UK, is a collection of exhibits that have no instructions and no defined outcomes, meaning they can be used time and again and visitors have their own unique experience. Visitors can create chain reactions, compose music, build machines and sculpt magnetic art. In a move away from traditional exhibitions, there are no information panels to read and no facts to learn, just lots of opportunities to play and ask the kinds of questions scientists ask - 'what happens if...?' ‘If I put these things together what will it do?’

Contact: +49 (0191) 243 8210 - www.life.org.uk

**PLANETARIUM SCIENCE CENTER SUMMER PROGRAM**
A series of activities is offered during this summer program aimed at school children in Alexandria, Egypt. Information is presented in a simplified and interesting way to fulfill youths’ passion for knowledge, stimulate scientific innovation, and entice young people to choose scientific careers. Over 2,000 students are divided into four age groups and experience science interactively through the hands-on workshops, planetarium shows, festivities and exhibitions, which are designed and implemented by specialized animators.

Contact: Telephone: +(203) 483 9999 Extension: 2350, 2351

**DASA-YOUTH CONGRESS TRAINING, EDUCATION, JOB, CHANCES**
In late September, the DASA-Youth Congress in Dortmund, Germany, offers helpful information and more for the future of thousands of young people in the DASA Working World Exhibition. Teenagers and young adults (ages14 and up) get first-hand information from apprentices, trainers and job and career counsellors concerning new job descriptions, qualification assessment methods and training opportunities. The DASA-Youth Congress is a non-commercial event meant to enlighten young people about possible career paths after completing school.

Contact: Monika Röttgen
roettgen.monika@baua.bund.de
www.dasa-jugendkongress.de

**FESTIVAL OF YOUNG SCIENTISTS**
The two-day festival included Contest for Young Scientists, a scientific conference called “Idea and What Next?” and technology workshops for teachers and students organised by the laboratories of the Copernicus Science Centre in Warsaw, Poland. Students presented their research projects concerning a variety of topics (including the study of tree growth rings, ants, fungi and fruit flies, and demographic problems) in the Polish finals of the Contest for Young Scientists.

“The Idea and What Next?” conference
highlighted new career paths in the world of innovation. Speakers discussed how to support talented individuals and improve possibilities of commercializing their innovations.

Contact: Magdalena Perdion, magdalena.perdion@kopernik.org.pl

FAMELAB A BIG HIT IN POLAND
FameLab is the world’s leading science communication competition and over 80 entries were received for the first Polish edition of this contest for young scientists. Participants had three minutes to highlight their work. The winner of the Polish edition, Monika Koperska, studies conservative chemistry and placed second in the international finals at the science festival in Cheltenham, UK. Monika works in the field of maintenance chemistry and calls herself a “spectroscopist”. She makes objects older, so that later - using a spectroscope - she can examine their nature and use that knowledge for preservation of objects that grew old naturally. She is the president of the society of Ph.D. students at the Jagiellonian University.

Contact: Kinga Paszkowska, kinga.paszkowska@kopernik.org.pl

TALENTENKIJKER CREATES A BROADER IMAGE OF PROFESSIONS IN SCIENCE AND TECHNOLOGY
Students can have stereotyped images of science and technology careers. Project Talentenkijker inspires students (10-12 years) to look at their talents and those of their classmates and actively involves parents in the process. Science and technology professionals (most of them women) visit schools and help students uncover the broad range of talents they can use in the field. The project is in cooperation with Science Center NEMO and the Dutch national expert organisation on girls/women and science/technology (VHTO).

Contact: talentenkijker@vhto.nl
www.talentenkijker.nl

THE CLONING DEBATE AT COPERNICUS SCIENCE CENTRE
One hundred and fifty secondary young students came to Copernicus Science Centre in Warsaw, Poland, to interact with Professor Keith Campbell - the scientist behind Dolly the sheep (the first mammal to be cloned from an adult somatic cell). Students were invited to ask questions and vote for or against therapeutic and reproductive cloning, and cloning of the dead. The meeting was organised under Project Genesis.

Contact: Wiktor Gajewski, wiktor.gajewski@kopernik.org.pl

ICECREAMOLOGY
On Saturdays during summer Hiša eksperimentov (The Slovenian Science Centre) organizes an event called ICECREAMOLOGY. It happens on the pedestrian bridge next to the city’s open air market. A science show is presented for the general public followed by making ice cream out of fresh mixed fruits from the market place and liquid nitrogen - it’s a 100 per cent healthy science.

Contact: Miha Kos, miha.kos@he.si

AHHAA CITY CAMPS: WHERE YOUNG INVENTORS MEET
Science Centre AHHAA in Tartu, Estonia, is organizing scientific City Camps every three months. Initially planned as a one-time event, the City Camps have now been held three times with a fourth scheduled for summer 2012. The purpose of the camps is to give kids ages 9 to 10 a different way to spend their summer holidays and to introduce them to natural sciences in a playful and interactive way.

www.ahhaa.ee/

FUELING YOUNG CHINESE CURIOSITY FOR SCIENTIFIC EXPLORATION AND DISCOVERY
In Shenyang, children and youth will find a new science centre for the playful discovery of the world. The gallery “Exploration and Discovery” presents natural forces and laws, mathematical principles and the structure of the cosmos in tune with curiosity and playful approaches. The science centre is due to open in 2013 and become one of the largest and most modern in China with 1.5 million expected visitors a year.

Contact: Michael Feser, mf@archimedes-exhibitions.de, www.archimedes-exhibitions.de
**EC SITE ANNUAL CONFERENCE 2013: DREAMS, THE SPIRIT OF INNOVATION**

**PRE-CONFERENCE WORKSHOPS: JUNE 4-5, MAIN CONFERENCE: 6-8 JUNE, UNIVERSEUM, GOTHENBURG, SWEDEN**

The Call for Proposals for the Ecsite Annual Conference 2013 has been launched and will close on 26 October 2012.

Follow updates about the 2013 conference on Twitter (#Ecsite2013), Facebook and on the conference website: www.ecsite.eu/annual_conference.

Session presentations from the Ecsite Annual Conference 2012: Time and space, unlimited of are now available in the 2012 sessions archive. Go to www.ecsite.eu > Activities & resources > Annual Conferences > Ecsite Annual Conference 2012

The 2012 conference feedback report is now available on Ecsite.eu. Thank you to all who contributed their feedback; a total of 241 online and 2141 session feedback forms were collected.

As of July 2012, Lucy Schweingruber has joined the Ecsite team as Events & Fundraising Manager. She is in charge of the Ecsite Annual Conference organization and is able to answer your questions in English, French and German. Contact her at lswheingruber@ecsite.eu.

**EC SITE MEMBERS INVITED TO JOIN PROJECT PROPOSAL**

Ecsite is a partner in a project proposal for raising young people’s awareness of Responsible Research and Innovation through formal and informal inquiry-based science education. This comes following the latest EU Science in Society call for project proposals. Ecsite is planning to involve five members as third parties. They must have a teacher training programme and be located in one of the following countries: Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, Former Yugoslav Republic of Macedonia, Germany, Hungary, Iceland, Ireland, Kosovo, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Romania, Serbia, Slovakia, Slovenia, Turkey. Ecsite contact: Didier Laval: dlaval@ecsite.eu.

**TOWARD AN ECSITE THEMATIC GROUP ON SPACE**

A Pre-Conference Workshop, Communicating European Achievements in Space, organised by Ecsite, Cité de l’Espace and the European Space Agency (ESA) took place at the Ecsite Annual Conference in Toulouse, France, in May 2012.

At the end of that workshop, science centres, museums and ESA agreed to work together to make a proposal to the Ecsite board by the end of November 2012 to create a “space” Thematic Group within Ecsite. The proposal will be made in collaboration with science centres and museums across Europe. Museums, science centres, Ecsite members and ESA are invited to attend. Pre-register here: www.cienciaviva.pt/actividades2010/workshop/index.asp.

**PLACES**

The 2nd PLACES Conference: Sharing Experiences is set for Tartu, Estonia, 10-12 October 2012. Online registration is open until 5 October 2012 at www.openplaces.eu/conference.

**NANOPINION**

Partners of the Nanopinion project are now reviewing past nanotechnology project materials to identify best practices. The portal, which will host information, dialogue and debate activities and opinion polls is currently being developed.
Ecsite and the British Council are scheduling events for general public outreach activities: Street labs and monitoring stations which will be run across Europe. Contact: Didier Laval, dlaval@ecsite.eu.

**XPLORE HEALTH**

The Xplore Health project finished at the end of August 2012. Check out www.xplorehealth.eu for engaging online games, dialogue activities and lab protocols for high school students on drug development, biotechnology, skin cancer, malaria, obesity, and more new topics to be added soon. All activities are available in English, Polish, Spanish, Catalan and French. Contact: Marzia Mazzonetto, Ecsite Project Manager mmazzonetto@ecsite.eu.

**SEA FOR SOCIETY**

Sea for Society recently met in Dublin to discuss approaches to Marine Research challenges. The goal will be to consult with and mobilize stakeholders, as well as citizens and youth, using participatory dialogue. The consultations will be organized starting from next year by project partners in nine countries: Poland, Sweden, Norway, Ireland, France, Spain, Portugal, Italy and Greece. Find out more: www.ecsite.eu > Activities & Resources > Projects

**KIICS**

The KiiCS project unites science, art and business incubators in an effort to support creativity and innovation with adults and young people. Find an interview with the project communication officer on the science communication blog: www.scienceineurope.com. To learn more about the project: www.kiics.eu/en/Home/Home/

**CIAO ILARIA, CI MANCHERAI**

By Camille Pisani, Director, Royal Belgian Institute of Natural Sciences, Brussels, Belgium

On the 28 of May 2012, Whit Monday, our colleague and friend Ilaria Guaraldi Vinassa da Regny gave up her fight, after a long and incredible effort, against “an illness that does not forgive,” to use her own words. Officially, Ilaria was Head of Educational Services and Public Relations of the Milan Natural History Museum. But in fact she was much more. Born in Dublin on April 10, 1963, after several years abroad (Hôpital Boucicaut in Paris, University of San Diego in the U.S.) she moved to Italy where she graduated in Palaeontology with a thesis on materials provided by the Milan Natural History Museum.

Ilaria was more than a person, but an institution, to whom everyone could refer when it came to science education and in particular the science of evolution - notably during times when the teaching of evolution was in danger in Italy. She was a major driving force behind many initiatives such as Darwin Day, the Evolutionary Happy Hours, the reference website Pikaia, and numerous petitions to defend the scientific teaching of evolution at school. In 2009 she was awarded the Ambrogino D’oro prize - the highest honour of the City of Milan. Although heavily impacted by her illness, Ilaria’s strength, fighting spirit, ability to build capacity, and gather people and means for an improved valuation of science, remained impressive until the end; even during her last recovery stay in hospital last March, Ilaria worked hard to spearhead a science café on evolution in Milan. Ilaria once wrote, “Remember that together we are a force”.

We will remember you, Ilaria.
Fourth International Conference on Science in Society, Berkeley, California, USA, 17-19 November 2012
This conference will address disciplinary and interdisciplinary challenges in the sciences, and in particular the relationships of science to society. Key themes addressed by the Conference include the social impacts of science, the values and ethics of science, the pedagogies of science, the knowledge-making processes of science, the politics of science and the economics of science. This conference aims to explore, in an interdisciplinary spirit, linkages between different areas of concern and practices of investigation.
http://science-society.com/conference-2012/

European Gender Summit, Brussels, Belgium, 29-30 November 2012
Building on the great success of last year’s event, EGS2012 brings together top-level researchers, science leaders, and policy makers to examine gender issues that impact on the implementation of the upcoming Horizon 2020, the European Research Area, and Innovation Union. As a high-level platform dedicated to promoting research evidence and consensus-seeking dialogue involving top-level leaders in science and policy and gender research scholars and experts, the Summit is dedicated to supporting and advancing excellence and effectiveness of research and innovation at all levels.
www.gender-summit.eu/

The course aims to encourage the use of the museum as a teaching and learning resource in science education and to contribute to the enrichment of professional knowledge and expertise in using museums. It encourages cooperation between formal and informal learning institutions and promotes the role of teachers and museum explainers as facilitators of students’ learning and active engagement in science. The course is open to museum educators, school teachers, teacher trainers and trainee teachers from all over Europe through EU Comenius or Grundtvig grants. Contact: Sara Calcagnini, calcagnini@museoscienza.it +39 02 48 555 322

Ecsite Directors Forum: 21-23 November 2012, Teknikens Hus Science Centre, Luleå, Sweden
The focus of this year’s forum is “Rocking the Balance” on the themes of diversity, social inclusion, gender balance and overcoming social stereotypes in science and technology. Gender equality continues to be a contentious issue in modern society, particularly with regard to women in science and research. Science centres and museums play a crucial role in overcoming prejudices about science and technology careers for both genders. Visit the Ecsite website for more - look under Activities & resources > Director’s Forum. Watch for online registration opening in September. Contact Maria Mazzonetto, Ecsite Project Manager: mmazzonetto@ecsite.eu