



The Science and Technology Center in Ukraine (STCU) is an intergovernmental organization dedicated to the prevention of the proliferation of expertise related to weapons of mass destruction (WMD). STCU assisting Azerbaijan, Georgian, Moldavian, Ukrainian and Uzbek scientists in their integration into the international science community. The STCU vision: for a safer and better world, to assist former WMD experts in the transition to self-supporting, peaceful activities in the international science and business communities...and to do so using the best professional practices.



Welcome to the STCU e-newsletter designed for the worldwide science and business communities in order to keep you informed with our current events, upcoming news and opportunities in the world of science and technology.

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Commercialization Round Table at the Kurdyumov Institute for Metal Physics



Under the STCU's Chief Technology Commercialization Officer Program, on 22 January the STCU conducted an IPR and Commercialization Round-Table at the G.V. Kurdyumov Institute for Metal Physics in Kyiv, Ukraine. The STCU goal in these types of round-table discussions is to encourage STCU recipient scientists and institutes to develop more collaborations and partnering opportunities with international science peers and commercial S&T customers.

The program at the institute included STCU presentations on strategic growth models for Ukrainian institutes, commercialization of intellectual property, the STCU Partners Program, the STCU patent support process, and on working with private technology investors.

Members of the institute's management and about 30 of the institute's scientists participated in the round table. The topics we presented are important for institutes of Ukraine and CIS in order to help them develop more collaborations and partnering opportunities with the international scientific community.

Upcoming events

24-27 May
STCU Governing Board meeting to be held in Tbilisi, Georgia

27-28 May
ASTP European Technology Transfer Association Symposium to be held in Paris, France

Useful Links

Public Library of Science is a nonprofit organization of scientists and physicians committed to making the world's scientific and medical literature a freely available public resource.

[Access their database of scientific literature at this link.](#)

Google Publication Search
<http://scholar.google.com.ua>

Google Patent Search
<http://www.google.com/patents?hl=en>

Google Book Search
<http://books.google.com/>

Free Patents Online
<http://www.freepatentsonline.com/>

Ukrainian Association of business-angels
<http://www.uaban.org/businessman.html>

The National Academies Press
<http://orsted.nap.edu/>

Nano information in Ukraine
<http://www.nanosvit.com>

Nano-technology in Ukraine
<http://www.nano.com.ua/>

Enterprise Europe Network
<http://www.enterprise-europe-network.ec.europa.eu/services/technology-transfer>

European Union and STCU Visit to Crimea to Discuss Biosafety & Biosecurity Cooperation



On 26 January in Simferopol (Crimea), the Chairman of the Verkhovna Rada (Parliament) of the Autonomous Republic of Crimea, Anatoly Gritsenko, met with Phillipe Servais (EuropeAid Co-operation Office of European Commission) and STCU Deputy Executive Director (EU) Michel Zayet, to discuss EU-Ukrainian cooperation in the field of Biosafety and Biosecurity and more specifically the future activities to be conducted in Simferopol's "Ukrainian Anti-Plague Station" of the Ministry of Health of Ukraine. Also attending these meetings were the Viktor Plakida (Chairman of the Council of Ministers of Crimea), Tatyana Zvereva (Chairman of the Standing Committee of the Verkhovna Rada of Crimea on Social Affairs, Health Care and Veterans Affairs), Sergei Donici (Health Minister of Crimea), Simferopol City Mayor Gennady Babenko, and Alexander Khaytovych (Head of the SU "Ukrainian Anti-Plague Station" of the Ministry of Health of Ukraine).

The discussions centered on a project to improve the bio-security at the existing facility. Constructing a new facility in Simferopol and providing personnel training in the field of biological safety could be envisaged according to experts' technical advice and budget availability. DG EuropeAid allocating funds for this project. Mr. Gritsenko said that Crimea is ready to cooperate and implement this project. The EU-STCU delegation then visited the State Organization "Ukrainian Anti-plague Station" in Simferopol, where its experts discussed current biosecurity & biosafety problems. Afterwards, officials of the Simferopol City Administration presented a potential building site for the new facility project.

Nuclear Forensics Coordination Meetings were held in Kiev 8-10 February



On 8-10 February, STCU hosted a working meeting of nuclear forensics experts to develop specific project proposals for the STCU Targeted Research Program – Nuclear Forensics initiative. The meetings, held at Kyiv Polytechnic Institute, included scientists and government officials from Ukraine, Azerbaijan, Georgia, and Moldova. There were keynote speakers from Health Canada and Defense Research and Development Canada (Ms. Sonia Johnson), from the European Commission (represented by Dr. Klaus

Mayer, JRC Laboratory of Transuranium Elements), and from Lawrence Livermore National Laboratory (Dr. Eileen Vergino representing the U.S. Energy Department / National Nuclear Security Agency). The participants discussed technical details of potential STCU project proposals, which the Canadian, EU, and U.S. representatives felt were suitable for funding consideration. The STCU staff will be working further with the Ukrainian, Azeri, Georgian, and Moldovan participants to develop and refine the preliminary project proposals so as to meet the expectations and recommendations of the western nuclear forensics program experts.

STCU participates in Conference on Commercialization of R&D Results Which was Sponsored by M. Lishchyshyn (Project Manager of STCU Project 3464) and organized by the Centre for Scientific and Technological Potential and Science History Studies of Ukraine



On March 10th, 2010 the Science and Technology Center in Ukraine (STCU) together with Dobrov Centre for Scientific and Technological Potential and Science History Studies organized International Scientific and Practical Conference "Modern science and technologies: from fundamental research to commercialization of R&D results". The conference was financed from STCU project 3464 (project manager Mariya Lischyshyn).

There were more than 100 participants in the conference. Keynote speakers were:

Dr. Anton Naumovets, vice-president of National Academy of Sciences of Ukraine.

It was followed by Lyudmyla Suprun, Head of the State Agency for Investments and Innovations.

Victor Ivchenko, Deputy Head of National council of science, innovations and sustainable development of Ukraine made a presentation "National innovative clusters - future of Ukraine".

Dr. Yaroslav Yatskiv, STCU Governing Board Member from Ukraine and also Director of Main Astronomic observatory National Academy of Sciences of Ukraine made a presentation "About some barriers on the way of R&D policy realization in Ukraine".

Victor Korsun, STCU Deputy Director made a presentation "Commercialization of intellectual property."

The topic of technology transfer and commercialization of science in Ukraine is of great importance because it can lead to business licensing opportunities with western companies and also investments from western companies in Ukrainian developments to start companies and joint ventures and to create high-technology jobs in Ukraine. Commercialization of Ukrainian scientific developments is a key factor for the growth of the Ukrainian economy, for modernizing scientific institutes and for attracting young scientists to remain in Ukraine contributing to the economy.

[To see the program, please click...](#)

STCU Business Finance Course for CTCO's



On March 12th the Science and Technology Center in Ukraine (STCU) organized a training course on business finance topics for Chief Technology Commercialization Officers, Institute Sustainability Program (ISP) representatives and high tech Ukrainian SME companies.

The introductory course was presented by Ms. Maryna Mendelenko, an expert trainer for European Business Competence License (www.ebcl.eu). This was an introductory demonstration session to introduce the CTCO's, ISP institutes and SME companies to this important financial area. EBCL training is intended to provide business directors and others with a working knowledge of business finance. The full set of courses would be equivalent to a mini-MBA. The courses are given in 2 sections of 12 weeks each, plus distance learning activities. At the satisfactory completion and testing the individuals can get an EBCL certificate in business finance.

In order to take the full set of training the individuals would have to show their intent in taking all the courses. The participants will consider this opportunity in the near future.

STCU Video Conference with Expert from Market Research Company -- NERAC



STCU organized a training presentation for Chief Technology Commercialization Officers (CTCO), Institute Sustainability Program (ISP) representatives and high tech Ukrainian SME companies with a market research and analysis company from the US -- Nerac (www.nerac.com). STCU has worked with Nerac for several years on requesting market research and patent search information. Nerac works with companies and universities to provide them with approaches for licensing technology developments at universities. Their advice is important for universities to understand the commercial potential of any new invention that is submitted to the Tech Transfer Office of a university. Such information is also important for Ukrainian

institutes and universities to understand the commercial potential of a new technology. STCU funded 6 market research analyses by Nerac for Institutes involved in the STCU Institute Sustainability Program (ISP). The market research and analysis reports have provided the ISP institutes information on what the market potential is for a given technology, who the major players and competitors are in the technology marketplace, and for developing a possible licensing strategy or for starting business companies.

Nerac has suggested that they could provide some introductory training on how to use such market information for developing a patenting and licensing strategy, and also to determine if there is a sufficient market for possibly starting a company based on the institute's technologies.

Dr. Doug Naab, a business and technology analyst from Nerac, provided a presentation on licensing strategy for universities and scientific institutes. since Doug was in the US, and our scientific representatives were in Kyiv, STCU organized a video conference event. Doug made his presentation in the US while his slides were viewed at the STCU conference room. The participants were able to interact with Doug in real-time and ask him questions throughout the presentation. Everyone found the topics presented valuable.

The video and teleconferencing mode of having this workshop was the first for STCU. We hope to use this approach in the future.

Ukrainian Information Agency UNIAN Press-Conference in Kyiv, April 7, 2010: "The paradox of Ukrainian Medicine"



On April 7th, 2010 there was a press-conference "The Paradox of Ukrainian Medicine" at the Ukrainian Information Agency UNIAN in Kyiv. The three participants of the press-conference informed the public that Ukrainian physicians and the Kyiv City Association of Employers urge the new Ukrainian administration to take measures to introduce into clinical operation THE MAGNETO-CARDIOGRAPHIC SYSTEM "Kardiomagscan", a medical non-invasive diagnostic system that will diagnose cardiovascular disease at early stages of development in youth, adults and elderly.

[Read more](#)

The Third International Business Forum on the Problems and Opportunities for Innovations in Ukraine held, March 26th, 2010



The Kyiv National Trade and Economics Institute conducted the Third International Business Forum on the Problems and Opportunities for Innovations in Ukraine on the 26th of March, 2010 in Kyiv, Ukraine.

The representatives of the central governmental executives, business, educational institutions, and mass media have taken part in the work of the business forum. That shows the importance of the problem.

During the forum participants discussed the main aspects of such important questions as the problems of governmental policies and development of the innovative system of Ukraine; innovative activities and technology transfer as a factor of competitive abilities of entrepreneurs; synergy of science, education and business in the sphere of innovation, innovations as an object of intellectual property; work of the centers of innovation and support of entrepreneurs centers.

Dr. Tsybulev P.N. Vice-rector, Institute of Intellectual property and rights in Ukraine, who works with STCU, made a presentation on the barriers that exist in Ukraine on commercializing technologies developed at scientific institutes and technical universities.

Oleg Zalozhenkov Patent Officer, STCU, made a presentation of opportunities for scientists under the STCU's Patent Program.

Other speakers at the Business forum were from the following organizations:

- The Ukraine Association of Investment Business,
- Verkhovna Rada Committee on Science and Education,
- Science and Technology Center of Ukraine,
- Department for Innovations and Technology Transfer of Ministry of Education and Science of Ukraine,
- The Kyiv National Trade and Economics Institute,
- The Ukraine Association of Business Incubators and Innovation Centers

Training for Business Plan Competition at the Institute of Physics in Kyiv



The Institute of Physics in Ukraine, supported by a grant from STCU's Institute Sustainability Program here is holding a contest of business plans at the institute to create a start-up. This initiative was also supported by EU program "Support to knowledge based and innovative enterprises and technology transfer to business in Ukraine".

In order to help scientists to prepare their business plan Peter Melnik-Melnikov, STCU Partner Manager conducted a training session April 1. The training included materials helpful for writing presentations for investors:

- 7 minutes pitch
- Value drivers for investors
- What is your business
- Who is your team
- What is the market
- What are your competitive advantages
- What is unique
- What is your business model
- Key budget figures
- Capital need and use of invested funds
- Risk factors
- Exit strategies

On March 31st, Declan Gordon Carrol, Key Expert of EU program "Support to knowledge based and innovative enterprises and technology transfer to business in Ukraine" also conducted training for institute scientist, who are preparing their business plans. He showed structure of creating a business plan and its content on with specific examples. The training was very interactive.

On April 29 business plan contest of Institute of Physics is planned. Scientists will present their business plans to an experienced jury for evaluation.

Renewable Energy Technology Conference and Exhibition was held
February 3-5, 2010 in Washington



Taking into account the global economic downturn and the acceleration of Earth's climate change (G8 Summit key issues) and understanding of the importance of these problems for STCU member-countries, STCU staff and 5 scientists from Ukraine participated at The Renewable Energy Technology Conference and Exhibition which was held February 3-5, 2010 in Washington, DC at the Washington Convention Center. The event included over 3,500 attendees, 250 exhibitors in the Trade Show, and 200 speakers in the Business Conference.

Arrangements for further contacts have been achieved to use scientific potential of Ukrainian scientific organizations in the field of development of renewable energy systems.

Scientists Meet with a Leading Ukrainian Law Firm "Asters"



On April 6, STCU organized a meeting with one of the leading Ukrainian law firm "Asters", where Chief Technology Commercialization Officers, Institute Sustainability Program Institutes and SMEs made their presentations. The business and technology information will be distributed by "Asters" company among a variety of Asters' clients (western businesses and manufacturers, investment organizations, different kinds of service organizations). Four presentations were made:

- [Electricity Generation Through Hydrocarbon Waste Processing- A New Technology](#)
- [Rotary engine "TurboMotor" for helicopter and auto applications](#)
- [Vitamin E metabolite industrial synthesis and application for protecting organism against oxidative stress](#)
- [Scientific and Engineering Company "Dnipro-MTO" Ltd, Ukraine](#)

Presentations of High-Technology Opportunities to the Investment Fund "Horizon capital" in Kyiv



Investment fund "Horizon capital" showed its interest to high tech business opportunities in Ukraine. On April 9 STCU held a meeting with Mark Khavkin, representative of "Horizon capital" with Chief Technology Commercialization Officers, Institute Sustainability Program representatives and SMEs. The meeting was really beneficial for scientists. Mark Khavkin asked presenters business question and provided business advice. The following presentations were made:

- [Electricity Generation Through Hydrocarbon Waste Processing- A New Technology](#)
- [Rotary engine "TurboMotor"for general applications](#)
- [Vitamin E metabolite industrial synthesis and application for protecting organism against oxidative stress](#)
- [Plant Growth Regulators today and in the future](#)
- [Scientific Engineering Centre "Biomass"](#)

Useful Publications

Antonov aircraft serial production commences as new orders pick up. Kyiv's Aviant aviation factory launched serial production on Dec. 30 of Ukraine's promising AN-148 regional passenger aircraft which can carry 68-85 people on short-range routes.

[Read more...](#)

Europe's biggest space company is seeking partners to fly a demonstration solar power mission in orbit. EADS Astrium says the satellite system would collect the Sun's energy and transmit it to Earth via an infrared laser, to provide electricity. Astrium is seeking partners.

[Read more...](#)

A molecular nano-burrs has been developed at the Massachusetts Institute of Technology (MIT), for treating hardening of the arteries which supply the heart, or atherosclerosis. Designed to find, latch onto, then treat hardened arteries could offer a new way to tackle heart disease, say its inventors, targeting only damaged cells in blood vessel walls. Once attached, they can release drugs in precisely the right place.

[Read more...](#)

Carbon nano-tubes used to make batteries from ordinary cotton and polyester fabrics have been turned into batteries at Stanford University. The demonstration is a boost to the nascent field of "wearable electronics" in which devices are integrated into clothing and textiles. The new application to fabrics is reported in the journal Nano Letters, showing the possibility of electronics that can be built on flexible and even transparent surfaces - leading to the often-touted "roll-up display" or roll-up electronics.

[Read more...](#)

Development of scientific and engineering fundamentals of hydrocarbons (natural gas) substitution for alternative gases.

[Read more \(English version\)...](#)

[Read more \(Ukrainian version\)...](#)

New piezo-valves are now available. They can be divided into 3 main types depending on their mode of operation. They include a piezoelectric ball valve, a piezoelectric eccentric pinch valve and a piezoelectric linear pinch valve. In each case the underlying technology is based on DTI's unique rotary piezo-motor technology developed by scientists and engineers in Kyiv. The result is a new class of valves that provide a superior alternative to comparable conventional valves used in many flow-control applications.

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A beginner's guide to the Big Bang is described during an interview by Matthew Stadlen of the BBC while interviewing physicist Professor Brian Cox, who was a former rock musician, about his excitement of working on the Large Hadron Collider, his science heroes, and how his taste in music is ageing.

[See the video....](#)

We all think we know Xerox, but Xerox's new CEO is about to change who Xerox will be in the future. Xerox is the bedrock American company whose name became an everyday verb. Today investors are eager to see Xerox build both revenue and earnings. The new CEO wants Xerox 130,000 employees to get over the past, take more initiative, become more fearless and be more frank and impatient with one another to ratchet up performance.

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For Silicon Chip Makers, the Next Battle Is in Smart-phones. The semiconductor industry has long been a game for business and technological titans. The going rate for a state-of-the-art chip factory is about \$3 billion. The plants typically take years to build. And the microscopic size of chip circuitry requires engineering that practically defies the laws of physics.

[Read more...](#)

UK researchers at the Surrey Space Centre have developed a device to drag space debris out of orbit. They plan to launch a demonstration of their "CubeSail" next year. It is a small satellite cube that deploys a thin, 25-sq-m plastic sheet. Residual air molecules still present in the spacecraft's low-Earth orbit will catch the sheet and pull the object out of the sky much faster than is normal.

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29 New energy conversion plants in Denmark, use new technology to convert trash into energy more cleanly. Their use has reduced the country's energy costs. Far cleaner than conventional incinerators, this new type of plant converts local trash into heat and electricity. Dozens of filters catch pollutants, from mercury to dioxin, that would have emerged from its smokestack only a decade ago.

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The Cabinet of Ministers of Ukraine has established the State Committee on Scientific and Technological Development and Innovation.

The order was made at the Cabinet meeting on 7 April. The Committee will act as a central executive body and will combine parts of the Department of Scientific and Technological Development, Department of Innovation and Technology Transfer, Ministry of Education and Science and Innovation, and the Department of the State Agency for Investment and Innovation.

The Committee will be the principal agency and the central executive authority on implementation of national policy in this area.

Europe has chosen where it wants to build the world's biggest telescope. The observatory will be constructed on Cerro Armazones, a 3,000 meter-high mountain in Chile's Atacama Desert. The E-ELT (European Extremely Large Telescope) will have a primary mirror 42m in diameter - about five times the width of today's best telescopes.

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