

Dear Readers,

This is 2nd issue of the ad-hoc CZELO Bulletin in 2015 which brings you information on recent developments, publications, studies, successes and position/jobs offers in the field of research, development and innovation in the Czech Republic. We wish you a pleasant reading!

**Kateřina Slavíková**

*Head of Czech Liaison Office for Research, Development and Innovation (CZELO) in Brussels*

## CZELO 10th ANNIVERSARY

On 28 May 2015, Czech Liaison Office for Research, Development and Innovation celebrates its 10 years presence in Brussels. On this occasion we would like to thank all our partners and colleagues in Brussels and the Czech Republic for the excellent cooperation and we look forward to it in the upcoming years. CZELO team.

### EVENTS

#### V4S – VISEGRAD 4 FOR SECURE DATA



The banner features a blue background with a row of four circular icons representing the Visegrad countries (Czech Republic, Hungary, Poland, Slovakia) at the top. Below them is a circular logo with 'V4' and stars. The main text reads: 'V4S – VISEGRAD 4 FOR SECURE DATA', 'Contribution of V4 to H2020 research and innovation effort in data security', '28 May 2015, 9:00 – 14:45', and 'Premises of the Permanent Representation of the Slovak Republic to the EU, Avenue de Cortenbergh 79, 1000 Brussels'. At the bottom, there are logos for CZELO, HunOR, PoISCA, SLORD, and the Slovak Republic's Permanent Representation to the EU.

On 28 May 2015, RTD Brussels based liaison offices of the Visegrad countries are organizing the conference on research and innovation activities in the area of data security and on the impact of such activities on secure solutions especially for small companies and ordinary users. The conference will be divided into three panels that will discuss the topic at the academic, business and political level. You can register to the conference via link [here](#) , detailed programme and agenda of the conference can be found [here](#).

## INVASIVE ALIEN SPECIES – CZECH CONTRIBUTION TO CHALLENGES FOR EUROPEAN RESEARCH AND POLICIES



On 3 June 2015 CZELO together with the Permanent Representation of the Czech Republic to the EU organize in Brussels a half-day conference on invasive alien species and diseases. The aim of the conference is to discuss challenges related to the invasive alien species (IAS) and diseases in Europe and their impact on the development of EU policies in the field of agriculture and environment. The conference will present policy view on invasive alien species and diseases and agricultural research as well as stakeholders' views (researchers from the Czech Republic and other European countries). Program of the conference can be found [here](#). All participants are kindly requested to register in advance by completing the registration form at <http://geform.tc.cz/iasconference/> before 1 June 2015.

## POLICY PAPER: ON THE ROAD TO AN INTERNAL MARKET FOR KNOWLEDGE

EUROPEUM (Institute for European policy) published the policy paper with the title „Realizing the Fifth Freedom: On the Road to an Internal Market for Knowledge“. The policy paper focuses mainly on the Member State roadmaps (to be published by mid-2015) for addressing the five priorities identified by the EU. Given the central role that knowledge is now considered to play in the economic competitiveness of nations, these roadmaps are not just about the future of knowledge policy, but about the potential distribution of wealth across Europe in the future. This policy brief identifies four key challenges by which to analyze whether these roadmaps will provide an opportunity for those countries to catch up: sufficiency of funding levels, engagement with the knowledge-based economy, promotion of excellence, and the protection of national interests. You can read the policy paper [here](#).



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# HILASE – SUPERLASERS FOR REAL WORLD APPLICATIONS



OP Research and  
Development for Innovation



EUROPEAN UNION  
EUROPEAN REGIONAL DEVELOPMENT FUND  
INVESTING IN YOUR FUTURE

The Czech Republic has invested €32M of EU structural and national funding in the construction of an advanced, "next generation" laser, HiLASE ([www.hilase.cz](http://www.hilase.cz)), at Dolní Břežany in the Central Bohemia Region. The HiLASE (High average power pulsed LASERs) centre was commissioned in 2015 as a major facility of the Institute of Physics (IoP) and has an ambitious mission to become an outstanding science and technology asset for the Central Bohemian region and for Europe.

## Key Technological Infrastructure for Laser Development

HiLASE focuses on the experimental development of a new generation of high energy diode-pumped solid state laser systems (DPSSLs) with high repetition rates. Thanks to the breakthrough technical parameters, HiLASE lasers are truly unique and you cannot find their equivalents in any other laboratory in the world. By employing the cutting edge technology of diode pumping, the lasers are significantly more powerful and efficient, more compact, more stable and more easily maintained than those driven by old-fashioned flashlamp technology. The research programmes are successfully implemented by cross-functional team of international scientists with wide experience

from prestigious research institutes and high-tech industry, i.e. Japan Atomic Energy Agency, ENSTA-ParisTech (France), Ferdinand-Braun-Institut (Germany), Tohoku University (Japan).



## Teaming for success

In February 2015, the HiLASE facility and the UK's STFC Central Laser Facility (CLF) have been awarded around €500,000 in the first phase of funding for a new Teaming initiative under the EU's Horizon 2020 framework programme. Competition for the funding is fierce and less than 20 percent of bids made it through this first stage. The partners will use this funds to build a strong business

case for the partnership. Thanks to a new partnership, the HiLASE laser centre is on the road to becoming one of Europe's Centres of Excellence. Moreover, a new long-term development strategy was introduced with the goals for the next 10 years (HiLASE 2025): Thanks to the unique R&D&I infrastructure, concentration of excellent researchers and technical staff, direct impact to industrial applications, HiLASE will till 2025 significantly contribute to the growth of international competitiveness of the Czech Republic and well-being of its people.

## Reliable partner for High-tech Industry

Results from HiLASE are already simplifying the production of many industrial enterprises in the Czech Republic and across the rest of the world. The clients ordering research on a contractual basis are not only domestic small and medium enterprises (e.g. Crytur, Omron, LAO Industrial Systems, Škoda – auto) and research institutions but also domestic and foreign universities (e.g. with Czech Technical University in Prague, Utsunomiya University Japan, Italian National Research Council). **HiLASE offers** - consultations, collaborative R&D, testing, realization - in a wide range of areas in Physics which complement each other: laser induced damage threshold measurement of optical materials; laser shock peening, prototyping of compact soft X-ray sources for EUV lithography in electronic industry; precise cutting, drilling and processing of special materials for automotive and aerospace industry; development and optimization of technology of laser micromachining and surface cleaning. The potential of HiLASE scientific equipment and know-how is further enhanced by close cooperation with Centre for Innovation and Technology Transfer (See: <http://www.citt.cz/en>).

# XXXII EUROPEAN MEMBRANE SOCIETY SUMMER SCHOOL 2015

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On 21 – 26 June 2015 is organized by Czech Membrane Platform in Stráž pod Ralskem (Czech Republic, Liberec region) 23rd edition of the European Membrane Society Summer School 2015 focused on Integrated and Electromembrane processes. Following scientific topic will be discussed during the summer school: Membrane Processes (general), Materials and Membranes for Electromembrane Processes, Electromembrane Separation and Synthesis Processes, Electromembrane Processes for Energy Conversion, Process Design and Mathematical Modeling, Integrated Membrane Processes, Gas Separation and Industrial Applications. To encourage students presence in this important membrane event, travel awards are being dedicated to those students/PhD-students who are EMS members and are the presenting author of either oral or poster presentations during the Summer School. Proposals for the travel awards will be selected against the following criteria: Scientific quality and originality of the contribution, Applicant's profile (CV) and Applicant's motivation; the deadline for travel award applications is 3 June 2015. More detailed information, including the registration form, can be found under the link [here](#).

## SUCCESSFUL CZECH ERC CONSOLIDATOR GRANTS PROPOSERS



Among the large international competition in the recent ERC Consolidator Grants call (ERC-2014-CoG) eight Czech researchers were awarded with the prestigious ERC grant (four in the Czech Republic and four abroad). The call attracted more than 2500 project proposals from which only 372 successfully passed the evaluation process and will be financed. Here are the successful projects and candidates:

- Artificial Intelligence for Large-Scale Computer-Assisted Reasoning, the principal investigator is Josef Urban and the host institution is Czech Technical University in Prague;
- Excitonic Magnetism in Strongly Correlated Materials, the principal investigator is Jan Kuneš and the institution is Institute of Physics of the Academy of Sciences of the Czech Republic;
- Dynamic assembly and exchange of RNA polymerase II CTD factors, the principal investigator is Richard Štefl and the host institution Masaryk Univerzity in Brno and
- Dicer - Dependent Defense in Mammals, the principal investigator is Petr Svoboda, host institution Institute of molecular genetics of the Czech Academy of Sciences.

Another four Czech researchers will be hosted at the institutions abroad. The complete statistics of the Call is available in the press release under the link [here](#).

# CZELO

**CZECH LIAISON OFFICE FOR RESEARCH, DEVELOPMENT AND INNOVATION**

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