



HEP Tech

Yearbook

HEPTech
High Energy Physics Technology Transfer Network

Compiled by Eleonora Getsova
Designed by Nádia Anahory Silva
Edited by Nádia Anahory Silva
Contributions from represented individuals

TABLE OF CONTENTS

| | |
|--|-----------|
| INTRODUCTION NOTE..... | 5 |
| NETWORK OF CONTRIBUTORS..... | 9 |
| HEPTech Organisational Structure September 2015..... | 10 |
| EVENTS..... | 15 |
| AIME: High Energy Lasers | 17 |
| Workshop on Technology Licensing..... | 18 |
| AIME: Industrial Applications of High Energy Lasers | 19 |
| AIME: Neutron Detection with MPGDs | 20 |
| AIME: Big Data Applications in Science and Industry | 21 |
| Workshop on Start-Ups and Spin-Outs | 22 |
| AIME: Cryogenics | 23 |
| AIME: Photon Detection with Micro-Pattern Gaseous Detectors (MPGD) | 24 |
| Workshop on Marketing of Science and Technology..... | 25 |
| HEPTech SYMPOSIUM..... | 27 |
| HEPTech NODES..... | 31 |
| 1. Commissariat à l'Énergie Atomique et aux Énergies Alternatives..... | 34 |
| 2. European Centre for Nuclear Research..... | 36 |
| 3. Centre National de la Recherche Scientifique..... | 40 |
| 4. Centro Nacional de Física de Partículas Astropartículas y Nuclear | 42 |
| 5. Demokritos National Centre for Scientific Research | 44 |
| 6. Deutsches Elektronen-Synchrotron | 46 |
| 7. ELI Attosecond Light Pulse Source | 48 |
| 8. Institute of Physics of the Academy of Sciences | 50 |
| 9. École Polytechnique Fédérale de Lausanne | 52 |
| 10. European Spallation Source | 54 |
| 11. Helmholtzzentrum für Schwerionenforschung | 56 |
| 12. "Horia Hulubei" National Institute of Physics and Nuclear Engineering..... | 58 |
| 13. Istituto Nazionale di Fisica Nucleare | 60 |
| 14. Inovacentrum - Czech Technical University..... | 62 |
| 15. Jožef Stefan Institute..... | 64 |
| 16. Knowledge Transfer Network..... | 66 |
| 17. Laboratório de Instrumentação e Física Experimental de Partículas | 68 |
| 18. National Technical University of Athens | 70 |
| 19. Sofia University St. Kliment Ohridski..... | 72 |
| 20. Science & Technology Facilities Council | 74 |
| 21. Technical University of Košice | 76 |
| 22. University of Belgrade..... | 78 |
| 23. Weizmann Institute of Science | 80 |
| 24. Wigner Research Center for Physics | 82 |
| NOTES | 85 |



The background features large, stylized numbers '2016' in a light teal color. The numbers are semi-transparent and overlap each other. A dark teal vertical bar is on the right side of the page.

INTRODUCTION NOTE



JEAN-MARIE LE GOFF

Chairman

The number, quality, attendance and diversity of the Academia Industry Matching events (AIME) organised this year are clear indications that the remarkable commitment of HEPTech members has now come to fruition.

For the last two years, we have jointly organized with the RD-51 collaboration no less than three events on the applications of micro-pattern gaseous detectors and they are willing to continue on the same pace in the future. Moreover, after the very successful event – largest attendance ever – in Grenoble on cryogenics, the recently created Cryogenics Society of Europe and the Europe Enterprise Network have signed with HEPTech a Letter of Intent committing to jointly organise a yearly event

on this topic. This is clear confirmation of the usefulness of such events for engaging with industry.

I look forward to tightening our links with industry by establishing similar agreements with other scientific communities. Having organized no less than three events in the last 18 months, no doubt that the laser community is one of our targets.

Now that we have reached maturity in organising these events, I am confident that we can develop this tool further with the help of specialized bodies such as EEN with a view to reaching industrial players that are not necessarily aware of the technology wealth developed for our research.

A handwritten signature in black ink, appearing to read 'J. Le Goff', written over a horizontal line.



IAN TRACEY
Secretary General

This has been a great year for HEPTech all because of the hard work of the members of the network. The HEPTech Symposium was a resounding success with 17 participants from 9 countries, working together for a week in Prague. These early stage researchers are the future of High Energy Physics and I am pleased that during a week HEPTech had the opportunity of getting to know them, and explain the importance of industry to HEP, and of HEP to industry.

Our communications has improved again this year, with an improved website, and regular columns in the CERN courier. I am indebted to the work that Christian from DESY and Eleonora from Sofia University have done in managing and developing this task. Press Releases are available for all events, and materials are now standardised.

We should not forego mentioning that for the first time this year we helped

our members win a major grant, BrightnESS, with eight HEPTech members and a total project value of almost 20 million euros. I wish to thank ESS for generating this success for us in leading the activity and helping with the efforts of the HEPTech Network in facilitating these successful grant proposals.

The Academia Industry Matching events (AIME) have grown in number and in size. We are now recognised as a place where Industry and HEP meet. I am pleased by the Letter of Intent that we have with the recently created Cryogenics Society of Europe and the Europe Enterprise Network.

Our challenge this year is likely to be on the funding of the network. We have laid out our new plans and I look forward to implementing them over the next year. Finally I thank Antonio for all the hard work he has done in keeping this project under control and on track.



The background features large, stylized, overlapping numbers '2016'. The '2' and '6' are light teal, while the '0' and '1' are light pink. The numbers are semi-transparent and overlap each other. A solid teal vertical bar is on the right side of the page.

NETWORK OF CONTRIBUTORS

HEPTech Organisational Structure September 2015

HEPTech Coordination:

| | |
|-------------------------------|-------------------------------------|
| Chairman of the Board: | Jean-Marie Le Goff (CERN) |
| Secretary General: | Ian Tracey (KTN) |
| Coordination Manager: | António Pacheco (KTN) |
| Communications Officer: | Eleonora Getsova (Sofia University) |
| Head of Community Activities: | Barbora Gulejová (CERN) |
| Operations Officer: | Konstantina Kyriazi (CERN) |

Workgroup on Accelerator Technology:

Convener: Jean-Marie Le Goff (CERN)

Workgroup on Detector Technology:

Convener: Andrea Vacchi (INFN)

Workgroup on Information and Computing Technology:

Convener: Peter Levai (Wigner RCP)

Convener: Dan Enache (IFIN-HH)

Workgroup on Sharing of Best Practices:

Convener: Bojil Dobrev (Sofia University)

Workgroup on Funding and Network Expansion:

Convener: Ian Tracey (KTN)

Convener: Katja Kroschewski (DESY)

HEPTech Grant Manager: Vera Winter (ESS)

Communication and Marketing Task Force:

Convener: Christian Mennrich (DESY)

Convener: Eleonora Getsova (Sofia University)



Stephan
Aune



Sylviane
Zaninotti



Kiko
Albiol



Gabriel
Clerc



Andrea
Crotti



Michele
Barone



Zsuzsanna
Tandi



Peter
Levai



Aleš
Hála



Katja
Kroschewski



Christian
Menrich



David
Berezkei



Karen
Lee



Charlotte
Thompson



George
Mikenberg



Ian Tracey



António Pacheco



Tobias Engert



Bojil Dobrev



Eleonora Getsova



Emir Sirage



Catherine Clerc



Céline Tanguy



Špela Stres



Evangelos Gazis



Christina Kontogoulidou



Dan Dumitru Enache



Andrea Vacchi



Bruno Checucci



Jan Jadlovsky



Thierry
Lagrange

Giovanni
Anelli

Jean-Marie
LeGoff



Barbora
Gulejová

Nick
Ziogas



Jaroslav
Burčík

Filip
Kessler



Nedeljko
Milosavljević

Saša
Lazović



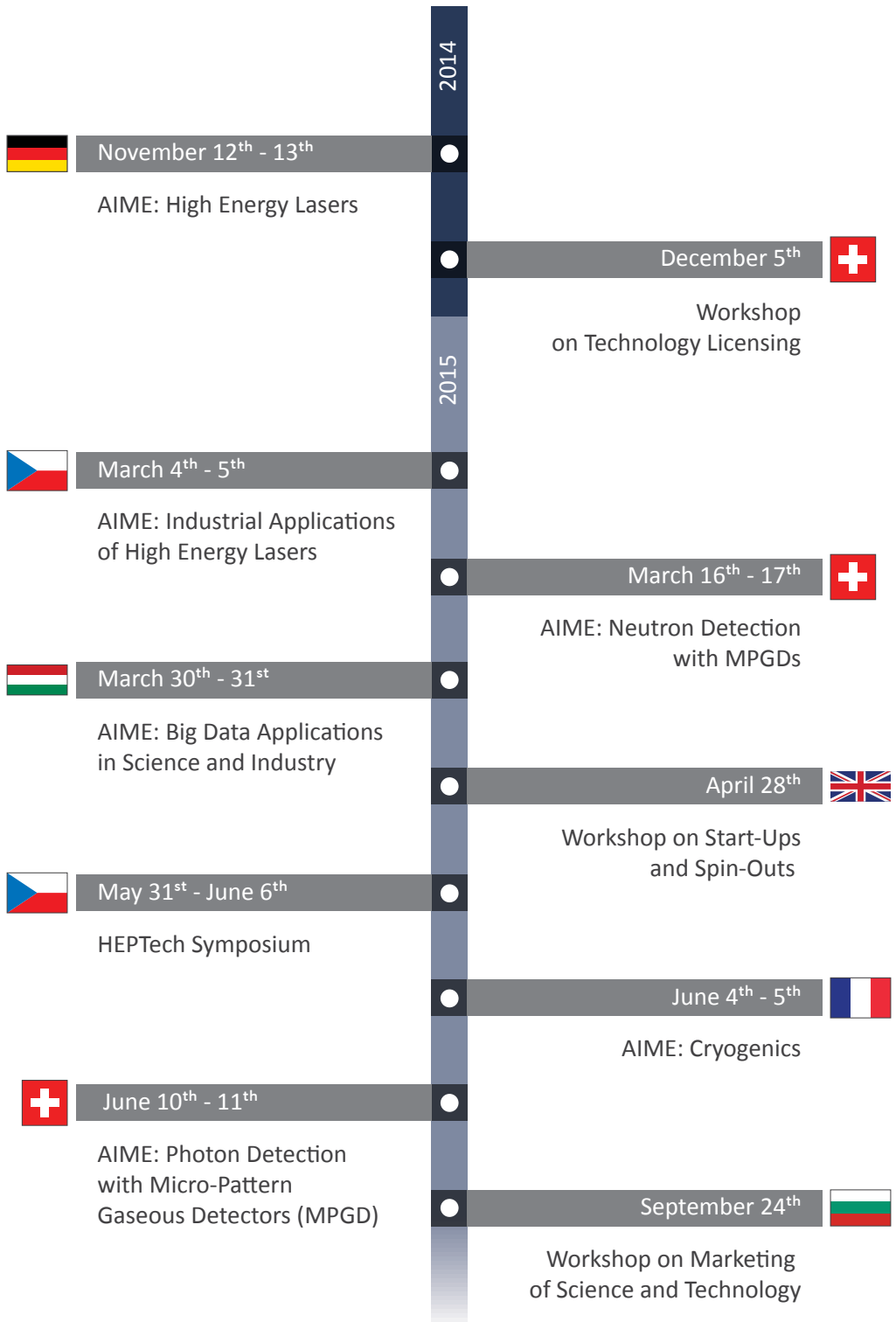
Ute
Gunsenheimer

Matti
Tiirakari





EVENTS



AIME: High Energy Lasers

Germany / November 12th - 13th, 2014



Photo: Thomas Walter (DESY)

The event hosted by DESY in Hamburg, Germany, explored the European dimension of leading high energy laser technologies.

It was attended by more than 100 participants – representatives of leading European research institutions and companies active in the field of laser technologies, who exchanged ideas on the issues the new lasers could solve in a better way in the future.

The participants acknowledged the great potential of the laser technologies for future applications. Currently, compact particle accelerators and accelerator technologies are used in producing X-rays for medical applications as well as particle beams for medical therapies. In the future, new material processing technologies for hardening of components and making them resistant to fatigue, will be based on them.

Workshop on Technology Licensing

Switzerland / December 5th, 2014



Photo: CERN

The workshop, hosted by CERN, was held to support the HEPtech nodes in exchange of best practices in technology licensing. It was delivered through a series of case studies on topics such as technology licensing in the framework of collaborations, licensing of technology with protected IP, licensing of know-how, and technology licensing in the framework of R&D partnerships.

Presenting and discussing case studies of their own practices, the nodes shared their experience and challenges they faced. National specifics in the respective legislation and policies (e.g. in the field of IP protection) were reflected and possible solutions to the particular cases were proposed.

AIME: Industrial Applications of High Energy Lasers

Czech Republic / March 4th - 5th, 2015



Photo: António Pacheco (HEPTech)

Laser shock peening and laser induced damage threshold were the main topics of the academia-industry matching event organized jointly by HEPTech and the Institute of Physics of the Academy of Sciences of the Czech Republic in partnership with HiLASE. The event took place in Prague and attracted about 80 participants – representatives of leading world research institutions and European industries.

Among the participants, there were researchers from the USA and South Africa, as well as big players in the aircraft

industry, such as Airbus. The new HiLASE facility was introduced during the event and engineers and industry representatives were made aware of the possibility to use these laser systems for their own purposes.

The laser shock peening is quite a new technology which is attractive for researchers all over the world. It is not that widespread, so it was a good reason for everybody to see the HiLASE that is going to be the most powerful laser in the world for industrial applications.

AIME: Neutron Detection with MPGDs

Switzerland/ March 16th - 17th, 2015



Photo: António Pacheco (HEPTech)

The RD51 collaboration event dedicated to neutron detection with MPGDs (Micro-Pattern Gas Detectors) organised jointly with HEPTech and held at CERN brought together prominent representatives of the particle physics community as well as already established and relatively young industrial players in the field of neutron detectors.

The aim of the event was to help disseminating MPGD technologies beyond fundamental physics, where academic institutions, potential users and industry could meet together.

The shortage of Helium-3 in the world brings new challenges to neutron detection, especially in the areas of homeland security, non-proliferation, neutron scattering science and other fields. Micro-Pattern Gas Detectors offer attractive alternative solutions for neutron detection, complementing Helium-3 based proportional counters.

The event provided a platform for discussion of the prospects of the MPGD use for thermal and fast neutron detection, commercial requirements and possible solutions.

AIME: Big Data Applications in Science and Industry

Hungary / March 30th - 31st, 2015



Photo: Tandi Zsuzsanna (MTA Wigner RCP)

The HEPTEch Academia-Industry Matching Event (AIME), hosted by the Wigner Research Center for Physics in Budapest, Hungary, explored the possible answers to the question: How big is big data in terms of big science?.

The aim of the event was to bring together academia and industry to share ideas and potential applications, and to foster collaborations in the newly emerging field of big data and related areas. It discussed some of the challenges that future HEP projects could face when generating and analyzing scientific data and examined new solutions.

The topics addressed, such as Storage in Big Data, Connectivity, Cloud Computing, Internet of Things, Medical Applications, Data Visualization, and Analytics attracted 87 participants from 12 countries. Among them were companies like Microsoft, UStream, HP, SAS and Intel Corporation (UK).

Most of the speakers at the forum pointed out that nowadays the scientific developments could only result from collaborative efforts.

Workshop on Start-Ups and Spin-Outs

United Kingdom/ April 28th, 2015



Photo: Eleonora Getsova (HEPTech)

The HEPTech Network together with the Knowledge Transfer Network organised a Knowledge Cafe at the Level 39 Technology Accelerator in Canary Wharf, London. The event was designed to support the HEPTech nodes in the development and implementation of their start-up initiatives and policies.

It brought technology transfer officers to present real cases of start-ups and spin-outs that originated with their institutions. Entrepreneurs that took science developed during research in high energy physics and turned it into a successful business venture shared their challenges and perspectives giving a unique view on the journey they took.

Each of the speakers highlighted one particular aspect of the complex puzzle of turning research results into business, attempting to cover intellectual property protection, funding streams, the importance of the team, and the exit strategy.

All case studies were presented in an open and interactive way, so that the participants were able to benefit as much as possible from the experience and expertise of the entrepreneurs, to bring up and discuss their own issues, and to search for solutions.

The event was extremely well received and further attempts at this format are being planned.

AIME: Cryogenics

France / June 4th - 5th, 2015



Photo: António Pacheco (HEPTech)

The “HEPTech Academia Meets Industry on Cryogenics” took place in Grenoble, France and attracted 154 participants, representatives of research and industry, from 15 countries (12 European countries, Japan, USA and India).

HEPTech organized the forum together with CNRS, CEA, Grenoble University, Lanef and ILL, in close partnership with CERN, the University of Twente, and the Rutherford Appleton Laboratory at the CCI (“Chambre de Commerce et d’Industrie de Grenoble”), which also supported the event.

The AIME aimed at building and strengthening links in the European Cryogenics Community.

It explored the subject of Cryogenics and its impact on society and research and covered topics relating to cryogenic systems for HEP at particles accelerators, neutron facilities, and related applications; cryogenics for astrophysics/HEP in space; industrial spin-offs: MRI, NMR and energy-related applications.

The event set up the basis for a continuous collaboration between HEPTech and the Cryogenics Society of Europe.

AIME: Photon Detection with Micro-Pattern Gaseous Detectors (MPGD)

Switzerland / June 10th - 11th, 2015



Photo: David Perez Caparros

The goal of the event, organised by the RD 51 Collaboration at CERN in cooperation with the HEPTEch Network and CERN's Knowledge Transfer Group, was to reveal the potential of the MPGD technologies and to help disseminating them beyond fundamental physics, by bringing together academic institutions, potential users and industry.

Representatives of prominent research institutions from Europe, Israel, USA, and Japan, and industrial players, attended the event and shared their experience and achievements in photon detection.

During the past 10 years, the deployment of MPGDs in operational experiments has increased enormously. Because of a growing interest in the benefits of MPGDs in

many fields of research, technologies are being optimized for a broad range of applications, demonstrating the capabilities of this class of detector.

MPGDs have also found numerous applications in fields of fundamental research such as X-ray and neutron imaging, neutrino–nucleus scattering experiments, dark-matter and astrophysics experiments, plasma diagnostics, material sciences, radioactive-waste monitoring and security applications, medical physics and hadron therapy.

The speakers explored several of these applications and presented new technological developments, as well as examples of successful technology transfers in the area.

Workshop on Marketing of Science and Technology

Bulgaria / September 24th, 2015



Photo: Steffen Boelaars

The ancient city of Plovdiv in Bulgaria brought together representatives of the HEPTech members at a dedicated follow-up workshop on Marketing of Science and Technology.

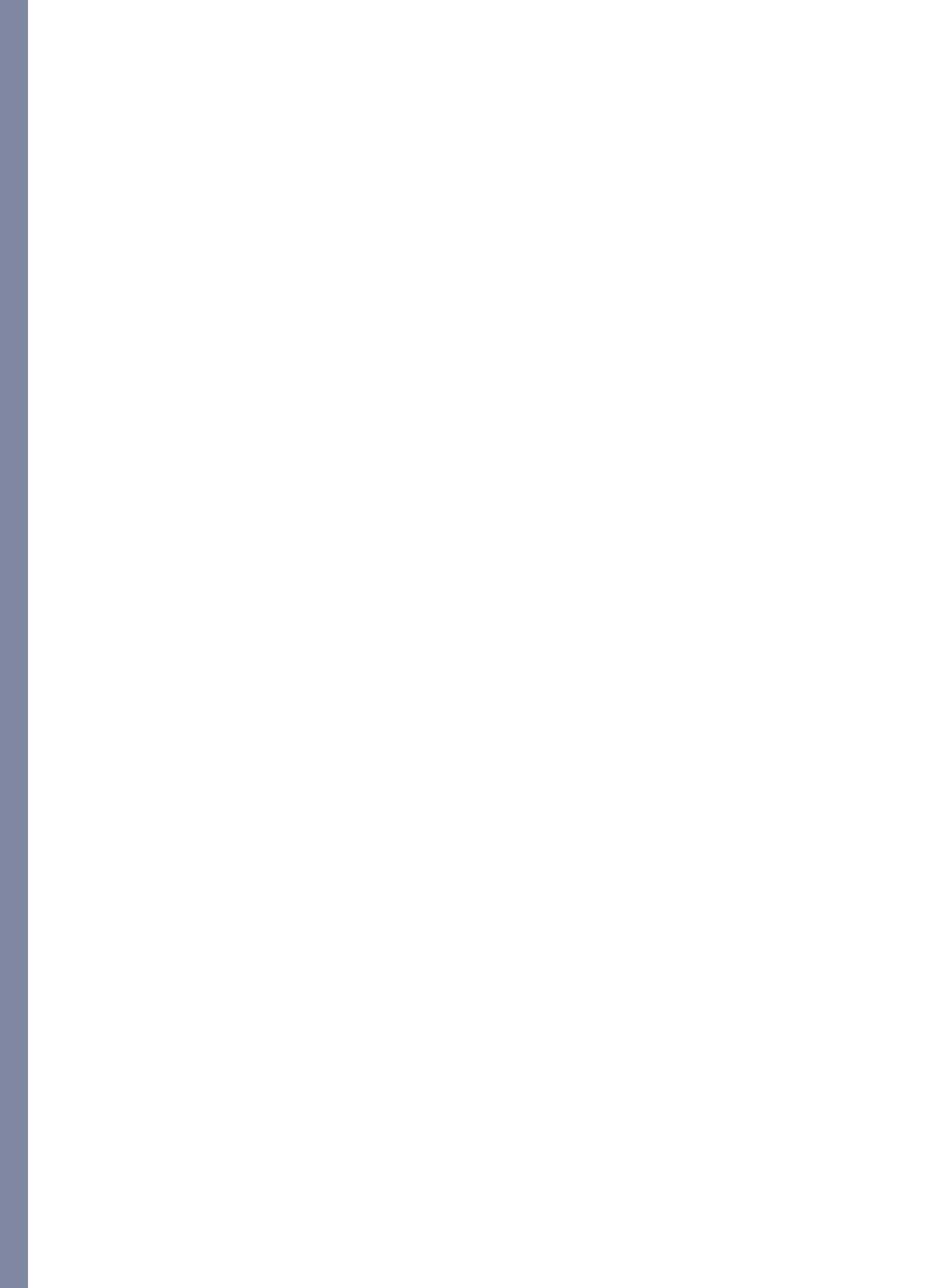
The aim of the event, organized and hosted by Sofia University, was to provide environment for sharing good practice and lessons learnt in this specific area of the TTOs' activities.

The topics were focused on the most frequently used tools for marketing of science and technology according to the HEPTech Nodes' Skills Survey conducted in 2013.

They were further explored in the presentations of the participants.

The audience was challenged by the issue on the relations between science and industry: Should researchers be considered as clients of industry, suppliers to industry or drivers of industry?

Additional impetus to the discussions was given by two invited speakers. All presentations were focused on successful practices and valuable lessons learnt, and were followed by lively discussions in which the participants acknowledged the practical benefits for their TTOs.



The background features large, stylized numbers '2016' in a light teal color. The numbers are semi-transparent and overlap each other. A dark blue vertical bar is on the right side of the page.

HEPTech SYMPOSIUM

HEPTech SYMPOSIUM

Czech Republic / May 31st - June 6th, 2015



Photo: Ian Tracey (HEPTech)

The second HEPTech Symposium took place from May 31st to June 6th 2015 in Prague and was hosted by Inovacentrum at the Czech Technical University, in collaboration with ELI Beamlines and Institute of Physics of the Academy of Sciences.

Seventeen early stage researchers from nine countries (Bulgaria, Czech Republic, Hungary, Italy, Lithuania, Romania, Sweden, Switzerland, and UK) attended the event.

The five-day program addressed the needs of the young researchers as potential entrepreneurs introducing them to issues relating to patent law and intellectual property protection, how and where to find help when starting a new business, what ideas work best for incubation, how to promote and market their research results, and how to attract an investor. Best practices on successful start-ups and products were discussed.



Photo: Moyan Brenn

All topics were presented by commercially experienced professionals and technology transfer experts.

An expert team specialized in innovative product design inspired the participants and made them realize that they were creative and could come up with practical applications for their technology. In one day, the young researchers went through the main phases of the process of conversion of the research results into a marketable product.

All experts acknowledged the mutual benefits of networking with young researchers and declared their intention to continue the communication with them.



Photo: Petr Pulc (CTU)

On the last day of the symposium, the participants learned the lesson that finding the right investor was like finding a life partner and were introduced to the top ten for attracting investors.

They gave 3-minute pitches on their technologies and received recommendations for marketing and commercialization from two business investors.



Photo: Eleonora Getsova (HEPTech)

Two special awards provided by the Raspberry Pi Foundation (UK) were given: for the project that attracted the investors' attention and for the participant who had progressed the most over the week.

The overall opinion of the participants was that they attended a unique format that introduced them to knowledge they had never accessed before, provoked their creativity and gave them a different perspective to research. They qualified their new experience as "life changing" and a "brilliant combination between theory and practice".

In 2016, we will be holding the third HEPTech Symposium in Bucharest, Romania. It will be hosted by "Horia Hulubei" National Institute of Physics and Nuclear Engineering (IFIN-HH) that is also leading the realization of the Extreme Light Infrastructure – Nuclear Physics (ELI-NP).

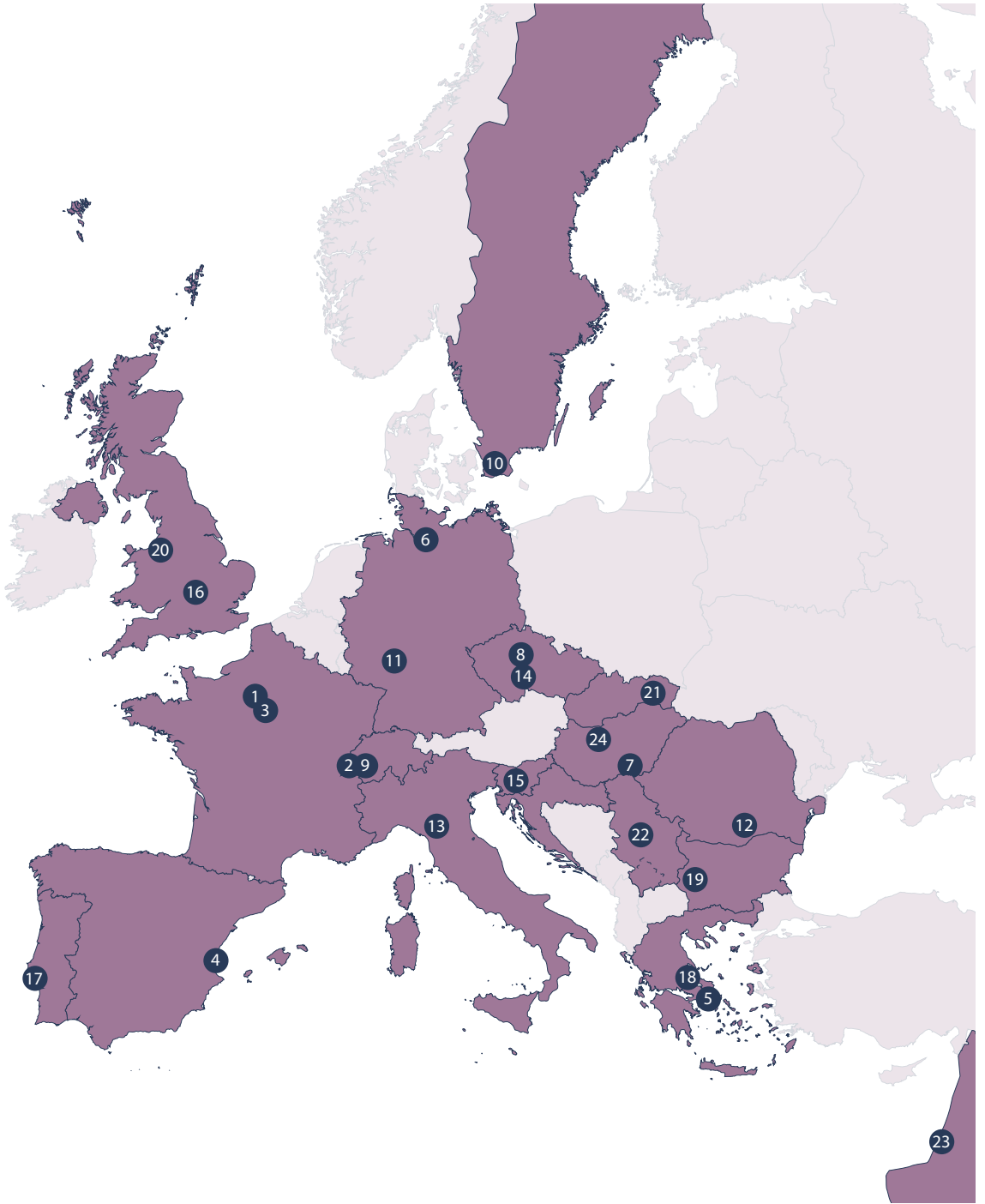


The background features large, stylized numbers '2016' in a teal and purple color palette. The numbers are semi-transparent and overlap each other. The '2' is teal, the '0' is purple, the '1' is teal, and the '6' is purple. The text 'HEPTech NODES' is overlaid on the '0' and '1' in a dark purple color.

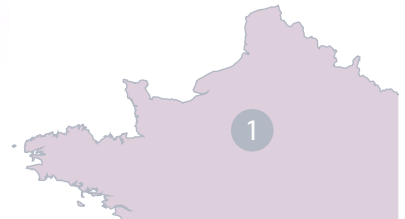
HEPTech NODES

Nodes

1. Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA)
2. European Centre for Nuclear Research (CERN)
3. Centre National de la Recherche Scientifique (CNRS/IN2P3)
4. Centro Nacional de Física de Partículas Astropartículas y Nuclear (CPAN)
5. Demokritos National Centre for Scientific Research (Demokritos)
6. Deutsches Elektronen-Synchrotron (DESY)
7. ELI Attosecond Light Pulse Source (ELI ALPS)
8. Institute of Physics of the Academy of Sciences (ELI Beamlines)
9. École Polytechnique Fédérale de Lausanne (EPFL)
10. European Spallation Source (ESS)
11. Helmholtzzentrum für Schwerionenforschung (GSI)
12. Horia Hulubei National Institute of Physics and Nuclear Engineering (IFIN-HH)
13. Istituto Nazionale di Fisica Nucleare (INFN)
14. Inovacentrum - Czech Technical University (CTU)
15. Jožef Stefan Institute (IJS)
16. Knowledge Transfer Network (KTN)
17. Laboratório de Instrumentação e Física Experimental de Partículas (LIP)
18. National Technical University of Athens (NTUA)
19. Sofia University St. Kliment Ohridski
20. Science & Technology Facilities Council (STFC)
21. Technical University of Košice (TUKE)
22. University of Belgrade
23. Weizmann Institute of Science
24. Wigner Research Center for Physics (Wigner)



1. Commissariat à l'Énergie Atomique et aux Énergies Alternatives



CEA, France

The CEA is the French Commission for Alternative Energies and Atomic Energy (Commissariat à l'énergie atomique et aux énergies alternatives). It is a public body established in October 1945 by General de Gaulle.

A leader in research, development and innovation, the CEA mission statement has two main objectives: to become the leading technological research organization in Europe and to ensure that the nuclear deterrent remains effective in the future.

Within CEA, the activities of the Institute of Research into the Fundamental Laws of the Universe (IRFU) cover the fields of astrophysics, nuclear physics, and particle physics.

IRFU's activities are focused on five thematic fields of physics: ultimate constituents of matter, energy content of the universe, structure formation in the universe, structure and evolution of celestial bodies, nuclear matter in extreme states.

Four other key topics cover the development of instruments and the transfer of IRFU's knowledge in the nuclear energy field or other communities:

Innovation for Detector Systems

The activities carried out in this field are about development of detectors, computation and simulation, signal processing and real time systems.

Magnets and Accelerators

These activities cover cryogenic test facilities, new developments for magnet and accelerator instrumentation, particle accelerators and super conducting magnets.

Physics for Nuclear Energy

Basic research in nuclear physics paves the way for new developments in the field of nuclear energy. The teams at IRFU are providing CEA with basic nuclear data; they are also studying the possible transmutation of long-lived nuclear waste, and contributing to projects in nuclear fusion.

Expertise Working for Society

Knowledge and technology developed for basic research prove to be useful in many other fields: dismantling of nuclear installations, development of sophisticated medical imaging tools or climate studies benefit today from the expertise at IRFU.



STEPHAN AUNE

Project leader
on detection system CEA/IRFU

stephan.aune@cea.fr

Training: mechanical & thermal engineer

Stephan has 10 years (1993-2003) of experience on CDD camera for astrophysics / astroparticle physics. He worked on the following projects:

- Project EROS (mechanical & thermal engineer)
- Project Megacam (mechanical & thermal engineer, system engineer)

He has 10 years (2000-2010) experience on micromegas detectors, while he worked as a project leader for several experiments:

- Project leader of Piccolo micromegas (sealed micromegas detector for nuclear power plant in core neutron flux measurement)
 - Project leader of CAST detector (low background micromegas detector for AXION search at CERN)
 - Collaboration on various micromegas R&D for other projects

Since 2008 he took several responsibilities:

- Project leader of CLAS12 tracker (low budget material curved micromegas vertex tracker)
- Responsible of the Saclay MPGD workshop (realisation of bulk micromegas R&D & prototypes) and member of RD51 collaboration
- Responsible for the Saclay micromegas bulk technology transfer to industry
- Deputy of the detector integration group (IRFU/LIDA) in Saclay.



SYLVIANE ZANINOTTI

Technology Transfer
Officer CEA

sylviane.zaninotti@cea.fr

Sylviane has been involved in Technology Transfer at CEA since 2005.

Her mission spans from patent portfolio management to establishing and negotiating licenses, with a focus on particle/nuclear physics matter and their related instrumentation.

Before 2005 she worked 4 years as a business manager for a public sector institution dedicated to economic development. Prior to that she spent 15 years in ICT, networks and information systems, namely as a project manager and group leader.

Sylviane received a Ph.D. in Particle Physics from the University PARIS XI in 1984.

2. European Centre for Nuclear Research



CERN, Switzerland

CERN's Technology Transfer Office has developed a wide range of technology transfer opportunities, reflecting the needs of its partners and the principles of the Organisation. CERN provides access to its technical expertise and innovative technology for scientific and commercial purposes through a variety of technology transfer opportunities.

R&D Collaborations

Collaborative R&D projects can be developed in CERN's areas of technical expertise, such as superconductivity to ultra high vacuum, from detectors to ICT. CERN has a well established tradition of collaboration with companies and research institutes, with the objective to generate technological results having a potential for commercial exploitation.

Service and Consultancy

CERN's expertise and cutting edge infrastructures represent a unique opportunity for companies and academics in need of a specific high tech service.

Our experts in the many areas of technical excellence are available to provide professional advice or specific studies to your business.

Spin-off Companies

CERN encourages the creation of new companies based on CERN technologies in the Member States.

The creation of spin-off companies is also fostered through incubation centres: In April 2012 CERN and STFC (Science and Technology Facilities Council in the UK) announced the launch of a new Business Incubation Centre at the STFC's Daresbury Science and Innovation Campus.

Licensing

CERN grants licences to commercial and academic partners for the exploitation of its technologies.

A selection of these technologies is available through CERN Easy Access IP, a royalty free licence.



THIERRY LAGRANGE

Head of Finance, Procurement
and Knowledge Transfer Department

thierry.lagrange@cern.ch

Responsible for the financial operations of the Organization, such as accounting, payroll and treasury, procurement of goods and services, knowledge transfer activities and sales.

Former positions

- CERN Finance Deputy Department Head, Purchasing and Industrial Services Group Leader, Industrial Services Manager (2004 – 2008)
- Management and supervision of all the purchasing activities of the Organization
- Alternate member of CERN Pension Fund
- Member of the Investment Committee
- Member of the Health Insurance Committee
 - CERN Supplies Procurement & Logistics Division Leader (2002 – 2003)
 - CERN Purchasing Service Head (1993 – 2001)

Education

- Masters degree in Financial Management VLEKHO, Brussels, (1982 – 1983)
- Degree in applied economic science RUCA, Antwerp, (1977 – 1982)



GIOVANNI ANELLI

Head of Knowledge Transfer
Group at CERN

giovanni.anelli@cern.ch

Giovanni Anelli was appointed Head of the Knowledge Transfer Group in August 2011.

Giovanni joined CERN's Knowledge Transfer Group in 2010 as Technology Transfer Officer. Before he worked for three years for LEM SA, a company market leader in providing solutions for measuring electrical parameters, where he was managing projects on the design of Integrated Circuits (ICs) for current transducers to be used in industrial and automotive applications.

Prior to this, Giovanni worked for 10 years in CERN's Microelectronics Group (Physics Department), where he designed several low noise low power analog and mixed signal VLSI circuits for High Energy Physics applications.

His research work also dealt with techniques to design radiation tolerant integrated circuits in deep submicron CMOS technologies, an approach which is now employed by the large majority of the integrated circuits of the Large Hadron Collider (LHC) at CERN.

Giovanni received a M.S. in Electronics Engineering from the Polytechnic of Milan (Italy) in 1997, a Ph.D. in Electronics Engineering (with honors) from the Polytechnic of Grenoble (France) in 2000 and an EMBA from HEC in Paris (France) in 2008. He is author and co-author of more than 70 publications and is an IEEE senior member.



Jean-Marie Le Goff is a senior applied physicist at CERN where he has been working since 1988. He holds a PhD in particle physics and a DPhil in computer sciences.

At CERN he has been involved with the L3 experiment (LEP) where he was first in charge of the optimization the muon spectrometer before taking responsibility for the general control system of the experiment; RD-38 a DRDC project to lay the foundations of the control system middleware of the LHC experiments, resulting in the transfer of the technology to a major paper manufacturer and utility company in Finland. He then worked on the electromagnetic calorimeter of the CMS experiment where he took charge of the team responsible for the software development dedicated to the tracking and assembly of the detector, which found applications in industry as Enterprise Resource Programming (ERP) software and Business Process Management (BPM).

JEAN-MARIE LE GOFF

HEPTech
Chairman

jean-marie.legoff@cern.ch

From 2000-2008, Jean-Marie Le Goff was in charge of Technology Transfer. His active role in transferring CERN technologies to industry lead to the evacuated solar collectors, now equipping Geneva's airport, the small animal PET system for Drug discovery developed by the Cristal Clear Collaboration (CCC) and an ultra-compact cyclotron for PET isotopes production cases. During his mandate Jean-Marie Le Goff proposed to the CERN Council the creation of HEPTech. He is also the leader of the work package on relation with industry in AIDA, the FP7 project on the development of new detector techniques for future accelerators.



Nick joined the Knowledge Transfer group as a Technology Transfer Officer in September 2012.

He previously worked within the IT Service Management team, involved notably in problem and event management. While leading the User Support section of IT, Nick was responsible for the site-wide computing desktop support, the CERN IT Helpdesk and IT problem management.

Additionally, his responsibilities included the definition and negotiation of service level agreements with services across the Organization and the definition of the strategy for the implementation of a CERN wide printing policy for which he oversaw the operations management.

NICK ZIOGAS

Technology Transfer
Officer

nick.ziogas@cern.ch

Prior to User Support, Nick was a systems analyst and developer within the IT Advanced Information Systems group, involved in the definition and development of web based applications like e-groups, CRA and e-payslip. From within the Administrative Support department, he worked on workflow systems such as Remedy ARS and electronic data inter change systems, establishing data exchange partnerships with financial organizations and CERN suppliers. Prior to CERN, Nick worked for the Sandoz Institute for Medical Research in London on a software analysis package.

Nick holds a BSc Honours degree in Physics from Imperial College of Science and Technology and an MSc in Computer Science from University College, London.



BARBORA GULEJOVÁ

Head of HEPTEch Community
Activities

barbora.gulejova@cern.ch

Barbora joined CERN and HEPTEch in July 2014 as a Head of HEPTEch Community Activities. Apart from the organisation of the Network's events, she has been reaching out to the potential partners, fostering new collaborations and actively working on acquisition of new members of HEPTEch which resulted in several new memberships. Given her experience in scientific publishing, she has actively collaborated with the Communication and Marketing Task Force. She edited the HEPTEch Yearbook 2014 and developed marketing materials. She has been also coordinating the H2020 project for HEPTEch partners. Today working in Outreach and Education group at CERN, she still supports HEPTEch at every occasion.

Barbora is a physicist with diversified profile. She studied at Comenius University in Bratislava and obtained advanced Master degree (RNDr) from Physics (specialisation in Plasma Physics) and Master in Management (both in 2004). During her studies she worked for Applied Plasma Physics Group creating industrial applications. She has also diploma in Pedagogics of Physics and worked as a HR Assistant during last year of her studies. Given her interest in diplomacy, she did traineeships in Ministry of Foreign Affairs of Slovakia and Permanent Mission of Slovak Republic by UN and other organisations in Geneva (2004-2005).

Afterwards (2004-2009) she did PhD in Thermonuclear Fusion (TF) at Plasma Physics Research Centre (CRPP), EPFL in Lausanne. Later she joined International Atomic Energy Agency (IAEA) in Vienna, where she worked for 2 years as a Scientific Editor. She compiled the comprehensive book "Fusion Physics", which represents a milestone in TF publications. In 2012 she joined an NGO in Geneva active in sustainable energy projects, where she pursued her passion for environmental issues, while working as a Scientific Officer and Assistant to President. From 2014 she works at CERN.

3. Centre National de la Recherche Scientifique



CNRS, France

Founded in 1939, The National Centre for Scientific Research (C.N.R.S.) is a public organization under the auspices of the French Ministry of Higher Education and Research.

It covers all scientific areas from humanities and social sciences, through chemistry and mathematics to earth sciences and astronomy, within its eleven institutes organized around their specific scientific field.

One of these institutes, the National Institute of Nuclear and Particle Physics (IN2P3), has the mission to promote and unify research activities in the fields of nuclear physics, particle and astroparticle physics.

It coordinates programmes within these fields on behalf of the CNRS and universities, in partnership with CEA.

Whilst these main aspects represent the core of its activities, IN2P3 has also several additional commitments such as enabling other scientific domains to benefit from its competencies and solving certain problems posed by society, as well as assisting the universities by contributing to youth training.

Lastly, IN2P3 is in charge of offering to business the benefits of its expertise by providing industry with the technological resources that it has successfully expanded within the framework of its research activities.

IN2P3 has contributed to the design and development of large-scale research facilities which are used for telescopes, particle accelerator, detector systems, computers, etc.



Catherine Clerc is a nuclear science and technology engineer.

Her first assignment at CNRS was related to the design, construction and commissioning of a small tandem accelerator devoted to ion implantation and material analysis using ion beams.

In 2006, she joined a high energy IN2P3 laboratory to contribute to the integration studies of a large detector, foreseen for the future International Linear Collider (500 GeV).

Since 2013, Catherine Clerc is the Technical Deputy Director of the institute. She is in charge of the effective management of projects and technical resources through a national coordination.

One of her responsibilities is to oversee and promote technology transfer in the 24 laboratories of IN2P3.

CATHERINE CLERC

Technical Deputy Director
of IN2P3 / CNRS

clerc@llr.in2p3.fr



Céline Tanguy studied engineering and specialized in nuclear technology, safety and environment. She started her professional career at CEA Saclay/IRFU in 2011 working on the coordination of the EU TIARA project, related to coordination of the accelerator R&D in Europe.

Since 2014, Celine has been working at CNRS/IN2P3 as a Technology Transfer officer. Her responsibilities include coordination of the technology transfer (TT) at IN2P3, relying on and leading the network of TT officers in the IN2P3 laboratories.

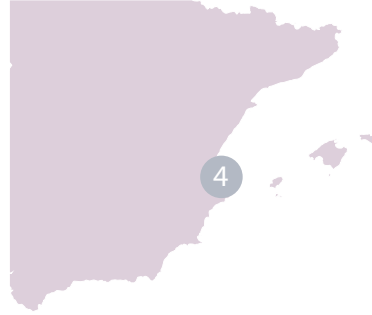
In parallel, she is involved in the development of a multi ion beam irradiation platform at CSNSM (IN2P3 lab in Orsay).

CÉLINE TANGUY

Technology Transfer officer
at CNRS/IN2P3

celine.tanguy@csnsm.in2p3.fr

4. Centro Nacional de Fisica de Particulas Astroparticulas y Nuclear



CPAN, Spain

CPAN is the Spanish National Center for Particle, Astroparticle and Nuclear Physics. It aims to actively promote the coordinated participation of the Spanish scientific groups in cutting edge research in particle physics, astroparticle and nuclear physics and enhance the visibility of member groups, reinforce their international competitiveness and ensure a critical mass, while optimizing available resources.

CPAN coordinates the activities of participating groups, supporting them in major projects and international initiatives, contributing to providing technical personnel and the know-how needed to deal competitively in the

international scientific environment of technological developments for future experiments, both those already approved (as the LHC, FAIR, MAGIC, ANTARES, Auger South, etc.) and those which are under R&D (such as ILC, KM3, CTA, or EURISOL Auger North, for example) or even future projects that require it.

CPAN also promotes R&D activities that support young scientists and technical staff, ensuring that there is an appropriate transfer of technological knowledge for companies, supporting scientific dissemination and training activities.



KIKO ALBIOL

Researcher IFIC
(CPAN)

kiko.albiol@ific.uv.es

Kiko holds a PhD in particle physics. From 1993 to 1998 he worked at CERN, Liverpool University and Valencia on the development of particle detectors for High Energy Physics. These developments were carried using silicon strips detectors.

In 1998 he co-founded a consulting enterprise to perform developments in Open Source, and I+D+i projects involving signal processing including imaging, data processing and in house developments.

He took the position of CTO at Sertecnet SL and President of a nonprofit association Integralia.

He worked on CISA certification in IT auditing (<http://www.isaca.org>).

He carried out plenty of applications and product developments funded and commercialized in private sector, including licenses carried within industry.

From 2006 to 2009 he worked as medical physics programming consultant.

He was involved in the development of radiotherapy planning systems including FDA certification.

From 2010 he started working for Deputy Vice Presidency of Knowledge Transfer Spanish National Research Council (CSIC) as part of Valencia Community Delegation.

Main areas of his responsibility are:

- Project manager in I+D+i involving vision and final product
- Automatization and system optimization
- Auditing and IT consulting
- Patent and IP experience.

Since 2013 Kiko works in research of I+D+i at IFIC.

5. Demokritos National Centre for Scientific Research



Demokritos, Greece

“Our mission is to further augment Research Excellence and to promote innovation and technology transfer.”

NCSR Demokritos, the largest multidisciplinary research centre of the country, hosts significant scientific research, technological development and educational activities, coordinated by eight institutes.

The centers with internationally distinguished scientific personnel utilise a number of unique Greek research infrastructures, working diligently towards scientific excellence, technological innovation and education.

Moreover intensive efforts are directed towards the interconnection of technology and innovation.

Through the combination of effective research administration and scientific management NCSR Demokritos promotes scientific research and technological development at a large scale and ranks among the top research centres in Greece and Europe.

In this manner, the scientific publications of scientists from NCSR Demokritos account for 35% of all publications produced by Greek research centres on an annual basis.



Michele Barone graduated in experimental physics at the University of Bari, Italy.

Following experimental work at CERN with the Division Group of Carlo Rubbia, he held teaching and research positions in Switzerland, Italy (Universita di Perugia, INFN-National Laboratory of Frascati) and Greece (Institute of Nuclear Physics at National Scientific Research Centre Demokritos and University of Athens).

His interest in experimental work led to managerial positions in international companies manufacturing systems for medical and scientific research. Dr. Barone is currently member of the Compact Muon Solenoid Collaboration and is acting as Industry Liaison Officer and Technology Transfer Officer for Greece at CERN.

He is author of some 150 papers and organizer of several international congresses and conferences.

MICHELE BARONE

**Industry Liaison Officer
and Technology Transfer Officer
for Greece at CERN**

michele.barone@cern.ch
barone@inp.demokritos.gr

6. Deutsches Elektronen-Synchrotron



DESY, Germany

DESY - Deutsches Elektronen-Synchrotron, is one of the world's leading accelerator centres and a member of the Helmholtz Association. DESY develops, builds and operates large particle accelerators used to investigate the structure of matter. DESY offers a broad research spectrum of international standing, focusing on three main areas: accelerator development, construction and operation; photon science; particle and astroparticle physics.

Thanks to its expertise and worldwide unique diversity of excellent light sources, DESY is a very attractive venue for more than 3000 scientists from over 40 countries a year, and a sought after partner in national and international cooperations and projects.

The DESY research programme is not restricted to the facilities at its two locations in Hamburg and Zeuthen. DESY is closely involved in a number of major international projects, including the European X-ray Laser Project XFEL in Hamburg and Schleswig Holstein, the Large Hadron Collider LHC in Geneva, the neutrino telescope IceCube at the South Pole and the International Linear Collider ILC.

Currently DESY is planning an innovation centre on campus which serves as an incubator and is supported by the city of Hamburg. Young spin-off groups will be provided with workspace and a range of support there.



After having studied at IMS Stuttgart (Institute for Natural Language Processing) and UC Berkeley Katja Kroschewski received her diploma degree in Computational Linguistics in 1996 and joined directly the Institute for Natural Language Processing at the University of Stuttgart as a research assistant. She then switched to the Language Services of Daimler AG in 1997. There she was responsible for machine translation and translation memory projects between May 1997 and September 2003.

As she had moved to Hamburg with her family in 2001 she left Daimler AG in October 2003, when she became the executive director of CompCat Software und IT-Lösungen GmbH (CompCat Software and IT Solutions Co.) and kept working freelance for Daimler Chrysler.

KATJA KROSCHESKI

**Head of Technology Transfer Office
DESY**

katja.kroschewski@desy.de

In November 2007 she joined DESY as a team member of DESY's TT office, marketing synchrotron radiation and working for the EU ERID watch project. Within this project she carried out a case study on industrial usage of synchrotron radiation across Europe.

Since December 2009 Katja Kroschewski has been head of DESY's Technology Transfer Office, which is reaching out and inviting companies to share the benefits of basic research together. DESY's TTO is responsible for patenting, licensing, industry contracts, sponsoring, assistance for spin-offs as well as utilization and marketing of technologies and services.



Christian Mennrich joined DESY's Technology Transfer Office in June 2013 where he is responsible for all topics related to the marketing of DESY's technologies and services for industry. He is also part of a project team conducting a socio-economic study on DORIS, Germany's first storage ring which was switched off - after running for almost 40 years - in early 2013.

After having worked for a Hamburg based market research company from 2000 to 2007, Christian studied Political Sciences and Administration at Fern Universität Hagen (a distance learning university) and received his Bachelor of Arts in 2011. Currently he is enrolled in a master program in Governance. During his studies he gained professional experience in the marketing division of Philips Television (now TP Vision) in Hamburg.

CHRISTIAN MENNRICH

**Technology Transfer Office
DESY**

christian.mennrich@desy.de

7. ELI Attosecond Light Pulse Source



ELI ALPS, Hungary

Founded in 2010, the main objective of ELI Attosecond Light Pulse Source (ELI-ALPS, Szeged, Hungary) is the establishment of a unique attosecond facility that produces ultrashort pulsed light sources between THz (10¹² Hz) and x-ray (10¹⁸ - 10¹⁹ Hz) with high repetition rates for both developers and users.

The primary mission of the ELI-ALPS research facility is to make a wide range of ultrashort light sources accessible to the international scientific community with a special research focus upon coherent extreme-ultraviolet (XUV) and x-ray radiations and attosecond pulses.

The secondary purpose of the facility is to contribute to the necessary scientific and technological developments required for 200 PW peak intensity pulse generation.

The ELI-ALPS infrastructure will provide the users, in the fields of the scientific research and industrial applications, with primary laser pulses in conjunction

with an impressive array of synchronized secondary light and particle pulses.

The outstanding characteristics of the source parameters include few-cycle pulses, from the terahertz/infrared up to the petahertz/ultraviolet, with an impressive 10 Hz to 100 kHz repetition rate; attosecond extreme-ultraviolet, soft and hard x-ray mJ pulses with a 10 Hz - 100 kHz repetition rate; sub-femtosecond hard x-ray pulses upto 10 keV photon energy and controlled ultra-relativistic pulse shapes with ultra-high contrast with 1Hz repetition rate.

The overall coordination of the preparation and implementation of the project in Hungary is managed by ELI-HU Non-profit Ltd. - a beneficiary of the Structural Funds financed project to build ELI-ALPS. It is also involved in other projects and has already two approved Horizon 2020 proposals.



David Bereczkei graduated from the Corvinus University (Budapest, Hungary) as an Expert on international relations (major) and European studies (minor).

He also studied at the Nottingham Trent University in the UK as an exchange student. Forthcoming is his graduation from the Faculty of Law of the ELTE University.

He has been involved with European Union funded projects since 2008 - first at the National Development Agency and later at the Prime Minister's Office.

He joined ELI-ALPS in 2013 as project management coordinator.

DAVID BERECKE

Project management coordinator

david.bereczkei@eli-alps.hu

8. Institute of Physics of the Academy of Sciences



ELI Beamlines, Czech Republic

ELI Beamlines is the Czech part of the Extreme Light Infrastructure (ELI) project, which is a part of the European roadmap of next generation major research facilities that have been identified by the European Strategic Forum for Research Infrastructures (ESFRI).

From 2018, ELI Beamlines will be a fully operational international research infrastructure based on an open access policy using cutting edge laser technologies to generate ultrashort light pulses with intensity up to 10 PW. The ELI Beamlines mission will be both fundamental academic research as well as applied research with direct societal impact.

The primary mission of the ELI Beamlines will consist of producing an entirely new generation of secondary sources driven by ultra-intense lasers. These secondary

sources will produce pulses of radiation and particles such as flashes of XUV, X-rays and gamma-rays, bunches of accelerated electrons, protons and ions, etc., exploitable as qualitatively new tools in many research disciplines and in the development of new technologies, namely material research and biotechnologies.

The research programmes (RP) of the ELI project are structured in the following way:

- RP1: Lasers generating high repetition rate ultrashort pulses and multi-petawatt peak powers
- RP2: X-ray sources driven by ultrashort laser pulses
- RP3: Particle acceleration by lasers
- RP4: Applications in molecular, biomedical and material sciences
- RP5: Plasma and high energy density physics
- RP6: Exotic physics and theory



Aleš joined the ELI Beamlines project in July 2011. Since the beginning of his engagement at ELI Beamlines, his major objective has been the creation of a solid technology transfer platform for laser projects ELI Beamlines and HiLASE. His team is involved mainly in technology prior art searches, patenting processes, supporting contract and collaborative research and delivering legal and business consultancy support to its fellow researchers.

Aleš started his professional career in 2002 in CzechInvest working with multinational companies in the electronics and semiconductor industries. Later, he lead the CzechAccelerator project identifying financial and development opportunities for technology driven startup companies in the USA and other world destinations.

ALEŠ HÁLA

Head of Centre for Innovation
and Technology Transfer
for projects ELI Beamlines
& HiLASE

ales.hala@eli-beams.eu

9. École Polytechnique Fédérale de Lausanne



EPFL, Switzerland

EPFL (École Polytechnique Fédérale de Lausanne) is one of two Swiss Federal Institutes of Technology. Like its sister institution, ETHZ, it has three missions: education, research and technology transfer at the highest international level.

Located on the shores of Lake Geneva, EPFL is Europe's most cosmopolitan technical university. It receives students, professors and staff from over 120 nationalities. With both a Swiss and international calling, it is therefore guided by a constant wish to open up its

missions of teaching, research and partnership impact to various circles: universities and engineering schools, developing and emerging countries, secondary schools and gymnasiums, industry and economy, political circles and the general public.

With over 350 laboratories and research groups on campus and its unique structure, EPFL fosters transdisciplinary research and promotes partnerships with other institutions and companies. It continuously combines fundamental research and engineering.



GABRIEL CLERC

Head of Technology Transfer Office
EPFL

gabriel.clerc@epfl.ch

Gabriel Clerc is a mechanical engineer of the Swiss Federal Institute of Technology in Lausanne (EPFL) with specialization in applied thermodynamics and turbo machinery. From 1978 to 1979 he worked as research and development engineer in the central R&D department of SULZER Co, Switzerland with activities in new products and systems in the fields of applied thermodynamics and materials. From 1979 to 1988 he was an experimental test pilot at the Swiss federal aircraft factory with numerous test flights and evaluations experiences mainly on fighter jets. He did one year of specialized training in this field in the US (USNTPS).

Since 1988 he was research contracts officer and licensing officer at EPFL. Since its creation in 1998, he has been a Head of TTO of EPFL and responsible for TTO and Industrial Research Contracts Office of EPFL. During many years he contributed to the development of the Science Park on EPFL campus as well as to the Foundation for Technological Innovation (FIT) which supports financially early stage start-up projects with pre-seed loans.

Gabriel is a member of AUTM (Association of university technology managers, USA) and ASTP (Association of European science and technology transfer professionals) and co-founder and past president of the Swiss Technology Transfer association swiTT (association of Swiss Technology Transfer professionals working for universities, federal institutes of technology and public higher education and research institutions).



ANDREA CROTTINI

Technology Transfer Manager
EPFL

andrea.crottini@epfl.ch

Andrea is technology transfer manager at the Technology Transfer Office of EPFL since 2011. His main mission is licensing technologies in engineering and physics.

Prior to that, Andrea worked in the field of optical sensors at IMT in Neuchâtel (CH), lasers and amplifiers at the Alcatel research centre in Marcoussis (F) and instrumentation for traces analysis in liquids at Hach-Lange (Danaher Corp.)

Andrea graduated in Physics from the University of Milan (I) in 1996, and obtained a PhD degree in optics and spectroscopy at EPFL in 2001.

10. European Spallation Source



ESS, Sweden/Denmark

ESS is a next generation materials research infrastructure that brings benefit to society. It is a partnership of seventeen European nations committed to the goal of collectively building and operating the world's leading facility for materials research using neutrons by the end of the decade.

It is one of the largest research infrastructures being built in Europe today and will be located in Lund, Sweden, while the ESS Data Management and Software Centre will be based in Copenhagen, Denmark. Around two to three thousand guest researchers will carry out experiments at ESS each year. Most of the users will be based at European universities and institutes, others within industry.

The European Spallation Source will have a state of the art facility, which can be compared to a microscope, using a neutron beam instead of the conventional light or electron beam.

The ESS construction is a collective effort by scientists and engineers from partner laboratories all over Europe and worldwide. Together, they have developed and specified a technical design of the facility, including the accelerator, the target and instrument concepts.

Many of the project contributions for ESS will be in the form of In-Kind Contributions from shareholders and partners. The implementation of In-Kind Contributions will be the responsibility of the partner countries and result in various collaborations between national institutes and industry.

To facilitate the cooperation with partners and institutions an ESS Industry Liaison Office (ILO) Network has been established. The ILO Network provides companies with a point of contact in the ESS partner countries. This support is focused on facilitating business opportunities related to In-Kind Contributions and procurement activities at ESS. They will also support the development of Technology Transfer opportunities linked to ESS, in addition to facilitating the industrial usage of beamtime.

The European Spallation Source is entering the construction phase, which will be followed by the operations phase starting in 2023. After the positive verdict from the Swedish Environmental Court allowing ESS to begin construction, site preparations are on their way for the ground break in autumn of 2014.



UTE GUNSEHEIMER

HEPTech Representative
of ESS

ute.gunsenheimer@esss.se

Ute Gunsenheimer joined ESS in November 2012 and is in charge of External Relations and EU Projects, which includes the collaboration with industrial stakeholders. In the past year the priority has been to raise awareness for ESS in the partner countries by organizing Partner and Industry Days, reaching a total audience of approximately one thousand participants.

In 2013 ESS established its Network of Industrial Liaison Offices which provides companies with a first point of contact in the ESS partner countries. For the time being this support is focused on facilitating business opportunities related to In-Kind Contributions and procurement activities at ESS.

ESS hosted the HEPTech “In-Kind Contribution Collaboration – A Challenging Partnership” workshop in January 2014 and Ute kick started the HEPTech Communication Task Force.

Ute has several years of experience in managing large teams in business environments. She was Managing Director of a Berlin based International Communication Agency with clients from almost all of the different General Directorates of the European Commission, as well as other European institutions.



MATTI TIIRAKARI

HEPTech Representative
of ESS

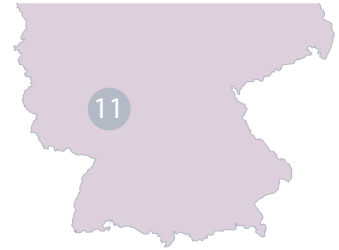
matti.tiirakari@esss.se

Matti Tiirakari joined ESS in January 2011 as the Director for Administration. Matti’s responsibilities include strategic management plan, finance, budget, HR, IT/non-scientific computing, Bureau (ESS’ governing bodies’ secretariat), procurement, In-Kind Contributions negotiations and contract management, legal services, safety/quality/security and logistics/office management.

Before joining ESS, Matti worked at CERN as a Logistic Manager for LHC (Large Hadron Collider) and was responsible for the supply chain management for the organization, stores procurement and management.

In 2008 Matti was promoted to the Head of Site Management and Engineering, and Deputy Department Leader for General Services Department of CERN.

11. Helmholtzzentrum für Schwerionenforschung



GSI, Germany

GSI operates a worldwide unique large scale accelerator facility for heavy ions and currently employs about 1,100 people. In addition approximately 1,000 researchers from universities and other research institutes around the world use the facility for their experiments.

GSI is a limited liability company (Ger. GmbH). Associates are the German Federal Government (90%), the State of Hessen (8%), the State of Rhineland Palatinate (1%) and the Free State of Thuringia (1%). They are represented in the Board of Directors by the Federal Ministry of Education and Research and the respective Ministries.

GSI is a member of the Helmholtz Association, Germany's largest research organisation.

The best known results are the discovery of six new chemical elements and the development of a new type of tumor therapy using ion beams.

Currently the international accelerator centre called FAIR (Facility for Antiproton and Ion Research) one of the largest research projects in the world is being built adjacent to GSI.



TOBIAS ENGERT

Head of Technology Transfer,
Physicist, Engineer,
Patent Engineer

t.engert@gsi.de

Tobias Engert studied mechanical engineering with specialization on “Manufacturing and Process Technology” and holds a PhD in Nuclear Structure Physics. Tobias has been working at GSI since 2003 and he started in the Nuclear Structure Research Department.

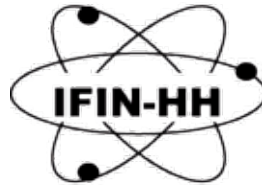
He was involved in a lot of developments and experiments with the spectrometers “Online Separator”, RISING and AGATA. Before GSI he worked for BMW, CORONET Kunststoffwerke GmbH and Freudenberg Vliesstoffe KG in the fields of services, plastic production and quality management.

During the time as researcher, Tobias was involved in a lot of R&D projects in the fields of radiation detection, mine verification and development of several medical devices.

Furthermore, he is an expert in mechanics, surface and semiconductor physics.

After seven years in the research department of GSI he changed to the Technology Transfer Group and following, he led the strategic Human Resources Group with focus on HR management and consulting for the FAIR project. In parallel to the work as Technology Transfer Manager, he studied National and International Patent Engineering in Berlin. Since 2013, he is in charge of the Technology Transfer department covering innovation management, business development, technology marketing and GSI services. Furthermore, Tobias is CEO of a R&D company called GFE Gesellschaft für Forschungs und Entwicklungsservice GmbH.

12. “Horia Hulubei” National Institute of Physics and Nuclear Engineering



IFIN - HH, Romania

The “Horia Hulubei” National Institute of Physics and Nuclear Engineering (IFIN-HH) is standing at the forefront of Romanian science both in terms of research infrastructures and research personnel, providing over 10% of the national scientific output.

Following the tradition initiated by the founder Professor Horia Hulubei, the IFIN-HH addresses a wide spectrum of research and development activities in fundamental and applied research areas including nuclear physics and astrophysics, particle physics, atomic physics, life and environmental physics, theoretical physics, nuclear techniques, and advanced communication systems.

The IFIN-HH has a staff of 688 employees, which include 307 R&D personnel, 235 PhD students and 21 PhD advisors. This makes the IFIN-HH fully compliant with the political, scientific and managerial requirements prevailing in the European space. To turn its strength to the best account, the institute concentrates its resources in two areas: (a) to steadily develop a sound in-house capability to get to and stay at the forefront of nuclear science and technology; and (b) to substantively

participate in the European collaborative endeavors centered on Large Scale Facilities such as GSI-Darmstadt (Germany), GANIL-Caen (France), CERN (Geneva), JINR (Dubna).

The IFIN-HH will continue to develop its infrastructure, manpower, and expertise. Bringing bright young people at the frontiers of Science and blending their enthusiasm with the experience and educated tenacity of the elders, is believed to be a sure recipe for the long term sustainability of the IFIN-HH activities.

In line with this, the IFIN-HH is leading the realization of the Extreme Light Infrastructure – Nuclear Physics (ELI-NP), the Romanian research centre part of the European distributed infrastructure ELI. This will be based on two main pieces of research equipment, a laser system that will produce two 10PW beams and a gamma beam system that will produce highly collimated, high intensity gamma radiation with tunable energy up to 20MeV. Using at the same time both high intensity gamma and laser beams, the materials behaviour in extreme radiation conditions will be studied.



DAN DUMITRU ENACHE PhD

Head of the Center
for Technology Transfer
and Marketing at the Romanian
National Institute for Physics
and Nuclear Engineering
in Magurele

dan.enache@nipne.ro

Mr. Dan Enache is the Head of the Center for Technology Transfer and Marketing at the Romanian National Institute for Physics and Nuclear Engineering in Magurele.

Previously (2013-2014), Mr. Enache worked at the Central Administration of the Ministry of Economy as Secretary of State for SME's, Business Environment and Tourism.

He has an extensive expertise in International Foreign Trade and Economic Relations being assigned a Minister Counselor for economic affairs at the Romanian Embassy in Washington DC (2001- 2005) and Economic Counsellor at the same embassy (1994-1998).

Prior to his second assignment, Mr. Enache was advisor to the Undersecretary for Commerce in the Ministry of Foreign Affairs as well as Director for North America, in the Division for Bilateral Relations with the Americas.

Mr. Enache began working at the Romanian Ministry of Commerce in 1986, starting at the Division for Africa and Middle East as a desk officer for Sudan and Egypt, responsible for the continuous growth of the bilateral trade exchanges between Romania and those countries. For three years (1990-1993), he had served as First Economic Secretary at the Embassy of Romania in Cairo, Egypt.

Before joining the Ministry of Commerce, he acquired a strong commercial expertise (1980-1986), dealing with foreign trade transactions of goods and services, as well as with investment projects in several Romanian foreign trade companies.

He holds an MS in Electronics from the Polytechnic Institute of Bucharest, an MBA in Economics and a PhD in International Business and Economics.

13. Istituto Nazionale di Fisica Nucleare



INFN, Italy

INFN is primarily a research community whose members work to discover the mechanisms and the fundamental components of matter. To do so, they invent and develop innovative technologies and make some of the most accurate measurements humanely possible.

INFN is a public research agency under the supervision of the Ministry of Education, Universities and Research (MIUR). It conducts theoretical and experimental research within a framework of international competition, in collaboration with universities. This requires the use of cutting edge technology and instruments developed by INFN at its own laboratories and in collaboration with industries. Today INFN employs around 5,000 scientists whose work is recognised internationally not only for their contribution to various European laboratories, but also to numerous research centres worldwide.

Impact on society and on the economy – Technology transfer

Basic research needs innovative solutions using advanced technology that often exceeds the available industrial know how. That is why INFN develops technological research for use in advanced experiments, driven by the need to develop new methods of particle acceleration and detection or data acquisition and analysis.

These experiments represent a unique source of innovative technology in the field of superconductivity, electronics, precision mechanics, high performance networks, medical imaging diagnostics, nuclear particle beam therapy, techniques for use in the preservation of artistic heritage, etc. It is therefore only natural that INFN should transfer the knowledge acquired during its research activities.

Transfer of technology is gradually becoming an established practice within INFN, also thanks to its new functional organisation. Over the years, INFN's technological research has had a multiple impact on many companies: from the size of their workforce to the ability to extend their product ranges and increase their engineering and production capacity.

Some businesses have been set up on the basis of ongoing relations with INFN. There are hundreds of cases in which INFN has been a source of stimulus and growth, even of employment, mainly among small and medium sized enterprises, and has fostered the creation and success of leading companies. Although from a financial perspective the impact on large scale industry has been marginal, it has developed and activated production lines which have made a significant technological contribution.



ANDREA VACCHI

Director of Research
at INFN

vacchi@trieste.infn.it

Andrea Vacchi is an experimental physicist coordinating a group active in space and accelerator physics experiments. He has an extensive experimental background in development and use of particles detectors. He has led the realization of the silicon tungsten tracking calorimeter, a key instrument, for the satellite based spectrometer PAMELA successfully launched in June 2006 dedicated to antimatter search in cosmic rays with particular regards to the high energy component of antiprotons and positrons.

He has been active in the medical application of silicon detectors with particular regard to the problems of screening in mammography with the development of high efficiency high contrast detector now on its path towards applications.

He is also chairman of the INFN Board for Basic Technology Developments "INFN-Commissione 5", he had the opportunity to gather a rather complete view of all themes bound to front edge technology developments and applications.

As a member of the INFN executive board he has followed, besides other commitments, the activities caring for all aspects of R&D; Technology Transfer; intellectual property, spin-off creation and contact with the industry. As a coordinator of the Technology Transfer Board of INFN, he is still dedicating a lot of attention to this demanding activity whose most important aspect is to bridge the distance between research motivated innovation and its applications in the entrepreneurial world.

<http://www.asimmetrie.it/>



BRUNO CHECCUCCI

Member of the INFN Technology
Transfer National Board

bruno.checcucci@pg.infn.it

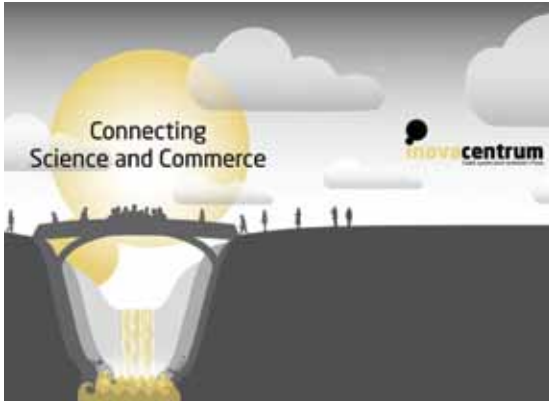
Bruno Checcucci received his B.Sc. and Master degree in Computer Science from Perugia University, Italy. He is currently responsible for the Electronic Service Laboratory at the Italian National Institute of Nuclear Physics and Physics – Geology Department, Perugia University.

From 1997 to 2010, he was an Assistant Professor with the Computer Science Department, Perugia University. He is the author of two books and more than 100 articles.

His teaching and research interests focus on fiber-optic data acquisition systems, high-density low-noise electronics, computer data networks, protocols and medical data acquisition systems. Since 1992, he has been a Scientific Associate at European Organization for Nuclear Research (CERN). At CERN, in the framework of the Compact Muon Solenoid (CMS) experiment, he has been responsible for the "Optohybrid" project and he is currently in charge of the "TELDES" project for the NA62 experiment. He is member of the INFN National Board for Technology Transfer and member of the Technical Program Committee of three international conferences.

Mr. Checcucci's awards include the CMS Award for CMS construction in March 2010.

14. Inovacentrum - Czech Technical University



Inovacentrum, Czech Republic

Inovacentrum CTU is a university centre for cooperation with companies in the Czech Republic and abroad. Inovacentrum provides comprehensive services to everybody wanting to use the expert knowledge and services available at the oldest and most prestigious Czech Technical University (CTU).

CTU stands for Czech Technical University, in original language ČESKÉ VYSOKÉ UČENÍ TECHNICKÉ (ČVUT).

Inovacentrum has 30 employees in 6 departments and offers the following services: customized research and

development, technology sales, access to experts, use of specialized laboratories and test rooms, organization of round table discussions and conferences, student internships and grant advisory services and grant administration.

Inovacentrum also manages InovaJET, a business incubator with around 24 innovative start-up companies every year.



Jaroslav Burčík graduated from the Faculty of Electrical Engineering at the Czech Technical University in Prague (CTU). In 2005 he initiated a project called Tripod aiming to develop and enhance innovative business and technology transfer at the university.

After the establishment of the Centre of Cooperation with Industry at the Faculty of Electrical Engineering and in December 2009 he was appointed director of the Technology and Innovation Centre of CTU. These two centres were united in 2011 and Inovacentrum CTU was established, providing services for the whole university. Today Inovacentrum has 30 employees.

JAROSLAV BURČÍK

Director
CTU Inovacentrum

burcik@inovacentrum.cvut.cz



Filip Kessler has graduated from the Faculty of Civil Engineering at the Czech Technical University in Prague (CTU), Business and Economics Department. He worked in PricewaterhouseCoopers as assistant auditor and in Institute of Experimental Botany of the Czech Academy of Science as controller.

He joined HEPTech in 2013 as a representative of CTU Inovacentrum. He plays active role within the HEPTech and its structure and events. Now he is responsible for the upcoming HEPTech symposium in 2015 in Prague.

FILIP KESSLER

Project
Manager

kessler@inovacentrum.cvut.cz

15. Jožef Stefan Institute



IJS, Slovenia

The Jožef Stefan Institute (IJS), founded in 1949, is the leading Slovenian scientific research institute, covering a broad spectrum of basic and applied research.

The staff of more than 930 employees specializes in natural sciences, life sciences and engineering. The main subjects concern physics, chemistry, biochemistry, new materials and nanotechnology, electronics, information and communication technology, reactor techniques and energetics, nuclear engineering and environmental technologies.

The basic goals of the IJS are to provide expert scientific and applied output in the form of processes, products and consultancy, and to produce well trained young scientists. IJS is building strong links to universities, other research institutions and industry.

Today IJS cooperates with many leading scientific research institutions world wide, such as Joanneum Research, the leading Austrian technological institute and Korean Basic Science Institute. For example, close collaboration with the University Medical Centre has resulted in the

development of medical equipment (tomography, electrical stimulators and appliances), the provision of isotopes for clinical research and treatment of patients, and the introduction of new research techniques and diagnostic methods into clinical medicine.

JSI devotes a considerable amount of effort to transferring the results of its research and knowledge to productive applications and to the market. A Technology Park established by IJS was a predecessor of the Ljubljana Technology Park, which today brings together over 290 companies. The Park supports creation and growth of new enterprises based on the results of research from Slovenian universities and international institutes.

Their products, technologies and services have been developed within research or application projects over the past few years. IJS actively makes use of this support for hi-tech enterprises to create an environment in which innovation, financing and production interact to accelerate the cycle of development of innovative products.



Špela Stres holds a PhD in Physics and a LLM Master of Laws. She is currently active as: Head of Centre for Technology Transfer and Innovation at the Jožef Stefan Institute; Founder of Slovenian Association of Science and Technology Professionals, SITT; Slovenian representative in Steering Committee and Board member of the CERN TT Network, Geneva, Switzerland; and Vice President of Association of Science and Technology Professionals (ASTP), Hague, Netherlands.

ŠPELA STRES

Head of Centre
for Technology Transfer
and Innovation (IJS)

spela.stres@ijs.si

16. Knowledge Transfer Network



KTN, United Kingdom

The KTN connects people, to speed up innovation, solve problems and find markets for new ideas.

Established in 2014 to foster better collaboration between science, creativity and business, KTN has specialist teams covering all sectors of the economy – from defence and aerospace to the creative industries, the built environment to biotechnology and robotics.

Working with large and small companies, government agencies, research organisations, venture capitalists and

private investors, KTN has built a unique network that helps people and companies dedicated to innovation reach their potential in the market place.

The KTN has helped thousands of businesses secure funding to drive innovation. And we support them through their business cycle to see that investment through to success.



He is responsible for growing and developing the KTN's strategies for assisting innovative companies through the application and raising of finance be-it lending, grants, or equity based.

He is also keen to explore entrepreneurship and how it relates to innovation, what infrastructure needs to be in place to improve it.

Previously, Ian Tracey was responsible for External Technology Transfer, Incubation and Entrepreneurship at STFC (www.stfc.ac.uk) where he created, managed and guided various STFC spinouts. These include TeraTech Components, Cella Energy, DSoft, The lectrospinning Company Ltd and PowerPredict.

IAN TRACEY

Head of Access to Funding and Finance, KTN

ian.tracey@ktn-uk.org

A firm believer in the value of entrepreneurship, Ian created the Harwell Oxford Technology Entrepreneur Forum in 2012 with the aim of making Harwell Oxford the technology entrepreneurial hub of the Oxfordshire and Thames Valley area.

Ian's early career and educational background is in information systems engineering. He was sponsored by BT Research Labs through university, predicting the future telecommunications products 15 - 25 years ahead. Research topics included using Virtual Reality to enhance team working. He made the first transatlantic Voice over IP call, the first public broadband line was his home and he helped the fashion industry have a better understanding of demographic centric body profiles.



António de Valladares Pacheco works for the Knowledge Transfer Network (KTN) based in London as the HEPTech Coordination Manager. He coordinates the efforts of the Workgroups and relates the necessary links between all the activities of the Workgroups through the Network and with the Coordination.

António arrived at CERN when he joined CERN Knowledge Transfer Group in March 2012, as a part of the contribution of LIP to HEPTech, in collaboration with the Fundação de Ciência e Tecnologia, from Portugal. Working as both a part of the Coordination of HEPTech and as a part of the KT Group, his responsibilities included the management of Technology Transfer Cases within the framework of a Technology Transfer Officer. During this first period, as a part of the Coordination Team, his responsibilities were with a wide range of activities from the administrative needs of the back office all the way with the involvement with all of the Workgroups activities, participating in the organisation of most of the events held in the past two years, and with the writing of grant proposals.

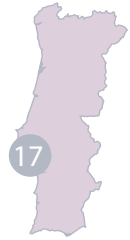
ANTÓNIO PACHECO

HEPTech
Coordination Manager

antonio.pacheco@ktn-uk.org

António received his M.Sc. in Technological Physics Engineering at Instituto Superior Técnico of Universidade Técnica de Lisboa in 2011. He worked as a scholarship student in computational physics at Laboratório de Instrumentação e Física de Partículas (LIP) in the field of particle physics, with a thesis on the "Drell-Yan process simulation in hadronic interactions in the COMPASS experiment" at CERN, where he spent some time for shift and collaboration work. Working with GEANT3 and Pythia his work focused on the Monte Carlo simulation of the spectrometer for the future setup of the experiment and the analysis of the impact these changes would have on the future physics results.

17. Laboratório de Instrumentação e Física Experimental de Partículas



LIP, Portugal

LIP is a scientific and technical association of public utility that has research in the fields of experimental high energy physics and associated instrumentation. LIP's research domains have grown to encompass experimental high energy physics and astroparticles, radiation detection instrumentation, data acquisition and data processing, advanced computing and applications to other fields, in particular medical physics.

The main research activities of the lab are developed in the framework of large collaborations at CERN and at

other international organizations and large facilities in Europe and elsewhere, such as ESA, SNOLAB, GSI, NASA, AUGER and LUX.

LIP is an “associated laboratory” assessed as “excellent” in three successive evaluations by international panels. In its three laboratories in Coimbra, Lisbon and Minho, LIP has about 170 people, out of which 70 hold a PhD degree, and many are professors at the local universities.



EMIR SIRAGE

Coordinator
of the Technology Office

emir.sirage@fct.pt

Currently the Coordinator of the Technology Office from the Portuguese Foundation for Science and Technology (FCT), he is responsible for the coordination of a designated structure that integrates the a number of programmes including international partnerships (MIT, CMU, UTAustin, Harvard Medical School and Fraunhofer Institute), industrial R&D (Eureka, Eurostars), industrial Liaison (CERN, ESO, ESRF) and Technology Transfer (PTTI - Portuguese Technology Transfer Initiative).

Emir also serves as the European Commission Portuguese Delegate at the ERAC (European Research Area Committee, formerly CREST) working group on Knowledge Transfer. ERAC is a strategic policy advisory body whose function is to assist the European Commission and the Council of the European Union in the sphere of research and technological development. The Knowledge Transfer Group follows issues regarding the intellectual property recommendations on the management of intellectual property in knowledge transfer activities.

Currently he is appointed as the Industrial Liaison Officer of the FCT responsible for industrial relations to ensure on behalf of the Portuguese delegation a progressive and sustainable industrial return for Portugal by actively meeting with Portuguese companies in the various sectors of industry, scientific organizations CERN, ESO (European Southern Observatory) and ESRF (European Synchrotron Radiation Facility).

Emir is also responsible as Industrial Policy Committee (IPC) Delegate to ensure on behalf of the Portuguese delegation at the European Space Agency (ESA) a positive and sustainable evolution of the geo return to Portugal.

18. National Technical University of Athens



NTUA, Greece

The National Technical University of Athens (NTUA) is the oldest and most prestigious educational institution of Greece in the field of technology and science, and has contributed significantly to the country's scientific, technical and economic development since its foundation in 1836.

NTUA is divided into nine academic Schools: eight - for the engineering sciences, including architecture, and one - for mathematics and physics.

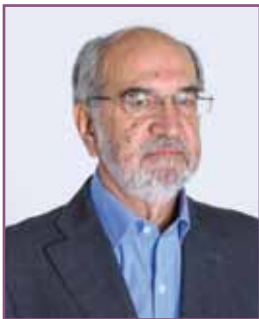
The personnel of the nine Faculties include more than 700 academic staff, 140 scientific assistants and 260 administrative and technical staff. The nine NTUA Faculties, divided into 33 Departments, are: School of Civil Engineering, School of Mechanical Engineering, School of Electrical and Computing Engineering, School of Architecture Engineering, School of Chemical Engineering, School of Rural and Surveying Engineering, School of Mining Engineering and Metallurgy, School of Naval Architecture and Marine Engineering, School of Applied Mathematical and Physical Sciences.

All the NTUA Schools are awarding a five-year Engineering or Applied Scientist Diploma degree, MSc degree and PhD degree.

The scientific research in NTUA is funded by both public and private sectors, as well as by EU sources.

The NTUA Senate supervises the overall Institution's function in compliance with the state laws and Institution's internal regulations. It forms the Institution's educational and research policy, its strategic planning development, and reports on its regular activities. Moreover, it is in close cooperation with various Greek and foreign Universities, as well as with other scientific and cultural institutions.

The Lavrion Technological & Cultural Park (LTCP), near by the temple of Poseidon, is a body of scientific research, education, business and culture. It was founded in 1992, as a result of an initiative undertaken by the NTUA. With its renovated facilities, the LTCP provides continuous support to research, education and technology. LTCP is essentially the Technology Park in Attica, which specializes in the key areas of modern applied technology, such as information technology, electronics, telecommunications, robotics, technology laser, environmental technology, energy, shipbuilding, and marine technology.



Evangelos Gazis is a professor of experimental particle physics at the School of Applied Mathematical and Physical Sciences, Physics Department, since 1982.

His positions, responsibilities and distinguished awards:

2014: Officier de Palmes Académique, Ministry of Education, Paris, France

2014-2015: CERN Scientific Associate

2011-2014: Chair of the NTUA Senate Committee of International and Bilateral Affairs

2009-2010: CERN Guest Professor, ATLAS Collaboration

2007-2008: CERN Scientific Associate and Visiting Professor at the University of Lund, Sweden

2005- currently: IEEE-NSS-MIC Contributed Papers Referee

EVANGELOS GAZIS

Professor of Experimental Particle Physics, Head of the Technology Transfer Office of the NTUA and Industry Liaison Officer for Greece at CERN

egazis@central.ntua.gr

Professor Gazis participates in research in nuclear, particle and astroparticle physics; gas detector construction, accelerator R&D, detector control systems and medical applications in hadron therapy.

He is author of more than 700 papers with 43000 references and 11 text books for the NTUA students and is supervisor and external examiner of many PhD candidates.

Professor Gazis has created a Greek hub for the HEPtech network in Greece with the involvement of the following institutions: NCSR Demokritos, Athens University of Economics & Business and University of Piraeus.



Dr. Christina Kontogoulidou is Head of the International Relations Office and Project Manager for Structural Funds and European Centralized Projects at the University of Piraeus, Greece.

She has a PhD in Health Management and since 2008 is Senior Lecturer in Health Management and Health Economics at the Department of Business Administration, University of Piraeus.

Her positions, responsibilities:

2014 Dec: Member of the NTUA-HEPTECH team

2013 ERASMUS MINISTER, EAEC (EUROPEAN ASSOCIATION ERASMUS COORDINATORS)

2013 – present: Responsible for organizing the mobility of the Consortium Placement for Higher Education for 5 Greek Universities (Piraeus, Pantion, Charokopion, NTUA, DUTH, TEI of Piraeus) and 3 Municipalities in the Region of Attica (Piraeus, Maroussi, Kalithea)

2004 – 2013 BOLOGNA EXPERT, National Team.

DR. CHRISTINA KONTOGOLIDOU

Communication officer for the NTUA HEPTECH Office

ckonto@unipi.gr

ckonto51@gmail.com

19. Sofia University St. Kliment Ohridski



Sofia University, Bulgaria

Sofia University St. Kliment Ohridski is represented by the Scientific Research Centre with a TTO.

The Scientific Research Center (NIS) is the department responsible for administration and support of research and project activities on a contract basis.

Annually, NIS administrates over 300 project contracts with a total value of about 10 Mio BGN. Projects are funded on a contract basis by the National Research Fund (60%), the EC Programmes (30%) and by industry. Over 500 researchers, mainly from the academic staff of Sofia University and over 120 researchers from NIS, take part in these activities.

A structure of the Scientific Research Center is the Technology Transfer Office (established in 2008) acting as an interface between research and industry, stimulating establishment of spin-offs and development of entrepreneurial spirit among the researchers.

The TTO is a member of the HEPTEch and ASTP Networks.
Publications:

Activities of the Scientific Research Centre:

- Provides administrative and financial services of projects;

- Performs project financial management and reporting;
- Provides support in project proposal development;
- Provides information about funding opportunities and events;
- Supports technology transfer;
- Provides consultancy in IPR issues;
- Performs training in commercialization of research results;
- Maintains web sites and data bases about projects and results;
- Produces information and promotional materials;
- Serves as a National Industry Liaison Office of CERN;
- Participates in international research and technology transfer networks.

Publications:

- Electronic monthly newsletter (grants, funding sources, events, scientific publications);
- "HORIZONTI", online academic journal (<http://nis-su.eu/Common/PublicJournal.aspx>)
- Yearbook of Research Projects;
- Sofia University Research Excellence (dedicated to 125th anniversary of Sofia University);
- Research at Sofia University (dedicated to 125th anniversary of Sofia University)



Bojil Dobrev graduated from the Technical University of Sofia. He has 20 years experience in IT research, development and management, and 15 years experience in delivery and management of business education.

He has participated in several international projects including IST projects, such as EMunIS (2001-2003), where he had the role of the Regional Coordinator; e-Inclusion (2005); e-Business W@tch (2006); and Knowledge and Technology Transfer (2011), where he was a National Correspondent.

Bojil was also involved in the development of the e-Government Strategy and Promotion in Bulgaria (2012).

BOJIL DOBREV

**Director of the Scientific
Research Centre (NIS),
Sofia University**

bojild@yahoo.de

Since 2009, he is the Director of the Scientific Research Centre (NIS) at Sofia University. Bojil is the author of more than 60 publications and of the book "Guidelines for e-Government" (2005).



Eleonora Getsova has substantial experience in information and communication management, training and project work. She is involved in a large spectrum of publication activities at NIS and in provision of relevant information to the research community at Sofia University.

Eleonora compiles and publishes a monthly bulletin with funding opportunities for students and researchers, containing also events and publications.

She is the editor of the on-line journal (*HORIZONTI*) for academic publications, mainly project related, published twice a year, and of the Yearbook of research projects at Sofia University. She designed and edited the Sofia University Research Excellence (a collection dedicated to the 125th anniversary of Sofia University) and the brochure Research at Sofia University.

ELEONORA GETSOVA

**Head of Information
Provision Unit at the NIS**

elor_66@abv.bg

Since July 2012, she acts as an Industry Liaison Officer between CERN and Bulgarian industry at Sofia University.

Since January 2015, she is the HEPtech Communication Officer.

20. Science & Technology Facilities Council



"Daresbury Tower from the Bridgewater Canal" by David Jones



STFC, United Kingdom

The Science and Technology Facilities Council (STFC) is one of Europe's largest multidisciplinary research organisations. Our vision is to maximise the impact of our knowledge, skills, facilities and resources for the benefit of the UK. Our research has impact across a wide number of areas including: energy, security, healthcare and environment.

Part of Research Councils UK, STFC is funded by the government to support world class science and technology by:

- Supporting researchers through grants, particularly in astronomy, particle physics, space science and nuclear physics;
- Providing access to world class scientific facilities in the UK at the Rutherford Appleton and Daresbury Laboratories, UK Astronomy Technology Centre and Chilbolton Observatory;

- Providing access to world class scientific facilities abroad, such as CERN, the Institute Laue Langevin (ILL), the European Synchrotron Radiation Facility and telescopes in Chile and Hawaii;
- Supporting scientific and technical expertise in the UK in areas ranging from microelectronics, alternative energy production and particle and nuclear physics, to space and ground based astronomy.

STFC's investment in science and engineering generates ideas and technologies with a broad social and economic impact. Researchers are encouraged to create new businesses based on their discoveries and STFC helps established companies use its research to improve their products and services.



Karen is working as part of the Business and Innovations directorate to increase the economic and societal benefit of STFC's research, innovation and skills by driving marketing strategies and activities targeted at industry. These include industry related projects such as the STFC CERN Business Incubation Centre and ESA Business Incubation Centre. Karen is also working with HEPTech to coordinate the marketing communications strategy for the network.

Karen is working with other joint venture partners to drive the development of the UK's two national science and innovation campuses at Sci-Tech Daresbury and Harwell, Oxford. She also interacts with other STFC departments and centres to support their engagement with industry.

KAREN LEE

Marketing Manager
STFC

Karen.lee@stfc.ac.uk

Karen is an experienced and enthusiastic marketing and communications manager who has worked across sectors including science and technology, innovation, charity, children's social care and education.



Charlotte Thompson is part of the Entrepreneurship team at STFC. Charlotte has essentially contributed to coordinate the STFC CERN Business Incubation Centre (BIC). The STFC CERN BIC is focused on developing new products and services using technologies originally developed for use in high energy physics research. There is £40,000 funding available, business support and technical assistance from both STFC and CERN to help small high-tech companies grow from technical concept to market reality.

Charlotte has also had an active role in implementing the business support package at the STFC Harwell Oxford campus and Scitech Daresbury campus as part of the Technology Strategy Board's Launchpad competition. She is the main contact point for the implementation of the scheme at the Scitech Daresbury campus, paying a key role in enabling several million pounds of investment into the campus companies over the next 18 months.

CHARLOTTE THOMPSON

STFC CERN
Business Incubation Manager

charlotte.thompson@stfc.ac.uk

Charlotte previously studied at the University of Manchester with a Bachelors in Economics and a Masters in Enterprise. Her Masters looked at the commercial potential of a resource valuation and optimisation model. During her education Charlotte pursued the dream of being an Olympic rower and has now joined STFC to follow another passion, working with SMEs to help them flourish and grow.

21. Technical University of Košice



TUKE, Slovakia

Established in 1952, the Technical University of Košice (TUKE – <http://www.tuke.sk>) is a public university whose main aim is to provide eastern Slovakia with access to technological/economic education and research. The University not only meets a wide range of educational needs in the region of eastern Slovakia but also in a number of technological areas serves as the only center of science and research in central Europe.

Currently, the University is organized into nine faculties: Faculty of Mining, Ecology, Process Control and Geotechnology; Faculty of Metallurgy; Faculty of Mechanical Engineering; Faculty of Electrical Engineering and Informatics; Faculty of Civil Engineering; Faculty of Economics; Faculty of Manufacturing Technologies with a seat in Prešov; Faculty of Arts; and Faculty of Aeronautics. By offering a variety of study programs and innovative research areas, each faculty successfully meets the requirements of the region, industry, and society.

The Faculty of Electrical Engineering and Informatics consists of 11 departments, one of which is the

Department of Cybernetics and Artificial Intelligence. Major research areas covered by the Department include modeling and control of dynamic physical systems, intelligent methods and algorithms, and employment of information and control systems in industry.

The University Centre for Innovation, Technology Transfer and Intellectual Property Protection was established to ensure cooperation with industry in the field of applied research. As part of its internal logistics, the University science park TECHNICOM provides physical and functional infrastructure for areas such as information and communication technologies, electrical engineering, automation/control systems, mechanical, civil and environmental engineering. One of its goals is to promote, accelerate and facilitate the incubation process for the establishment of small and medium hi-tech start-up/spin-off companies generated within TECHNICOM research activities.

Since March 2015, the Technical University of Kosice is a full member of the ALICE Collaboration at CERN.



**ASSOC. PROF. ING.
JAN JADLOVSKY, PHD**

Team leader of the Technical University of Kosice group in the ALICE Collaboration, Department of Cybernetics and Artificial Intelligence, Faculty of Electrical Engineering and Informatics (FEEL), Technical University of Kosice (TUKE)

jan.jadlovsky@tuke.sk

Ján Jadlovský studied technical cybernetics at the Faculty of Electrical Engineering, Technical University of Košice (TUKE). In 1994, he defended his habilitation thesis which focused on distributed control systems. Since then, he has worked as an associate professor at the Department of Electrical Engineering of FEEL, TUKE.

He has been involved in basic research related to distributed control systems and supervised a number of bachelor, master and dissertation theses in this area. Most importantly, he has contributed to the development of a universal model workplace based on the five-level pyramid model of process control with a wide range of physical applications. Together with his team, he has developed and implemented a number of solutions for regional manufacturing companies using this model, in which his long-term goal of transferring research results into production was repeatedly achieved.

Assoc. Prof. Jadlovsky is currently involved in the development of the University Science Park Technicom at TUKE, where he is the principal investigator of the pilot project PP7 – “Center for Nondestructive Diagnostics of Technological Processes”, which focuses on control and diagnostics of technology projects using camera systems, laser technology, mobile and service robots.

Since 2012, he has been involved in the ALICE experiment of CERN in cooperation with the Institute of Experimental Physics of the Slovak Academy of Sciences based in Košice. He is the Team Leader of the TUKE research group within the ALICE collaboration.

22. University of Belgrade



University of Belgrade, Serbia

The University of Belgrade (founded in 1808) is represented by the Institute of Physics and Centre for Technology Transfer (founded in 2010). It is the premier research and higher education institution in the Republic of Serbia. With 90,000 students, 5,000 senior and junior teaching staff, 31 Faculties and 11 Research institutes, it is the largest university in Serbia and Western Balkans.

The University of Belgrade has been the scientific support to Serbian economy for decades. In addition to educational and scientific work, the University has been solving problems, not only of adopting and developing new technologies in industry, construction, and agriculture, but also of harmonization of socio-economic relations, culture, education or anything else that required the engagement of the highest creative and scientific potential.

In an effort to substantially contribute to the development of a national innovation system and creation of a knowledge-based economy and society, the University of Belgrade has founded the Center for Technology Transfer (www.ctt.bg.ac.rs), primarily for the purpose of identification, protection and commercialization of R&D results of the University of Belgrade.

Institute of Physics Belgrade (IPB) makes up 1% of Serbia's research sector, producing roughly 10% of the country's scientific output. IPB leads Serbian participation in international projects and collaborations. The immediate benefit of this collaboration is a high degree of researcher mobility (particularly for younger researchers and students).

The majority of these international collaborations are within the European Research Area (ERA) or with key international research centers. IPB has successfully participated in international projects. Over the last ten years, IPB has become a focal point for reintegration of experts from Serbia's Diaspora.

Primary goals and tasks of the Center for Technology Transfer are:

- Improving the opportunities for efficient and effective implementation of scientific and research results achieved at the University, with the goal of developing the economy and society;
- Encouraging knowledge transfer between the University and economy;
- Support for placement of new technologies and innovations;
- Linking relevant subjects, establishing a network and collaboration with the aim of intensifying the technology transfer;
- Developing knowledge and skills in the protection and use of patents and other forms of intellectual property in the process of technology transfer;
- Strengthening the awareness of intellectual property and the capacity for technology transfer at the University;
- Providing general information on intellectual property;
- Expertise and support in drafting feasibility studies in the fields of economy and technology, as well as assessment of the value and total potential in the use of patents;
- Support in establishing new innovation centres, incubators and business and technology parks founded by the University and its faculties.



Dr. Nedeljko Milosavljević is the Director of the Center for Technology Transfer at the University of Belgrade. He studied at the Faculty of Technology and Metallurgy, University of Belgrade (FTM). He obtained all of his degrees in chemical engineering (BSc and PhD) at the FTM. He attended a post-doctoral study programme at Ohio University, Athens, OH, USA. In 2012, he passed the Technology Transfer Programme “Innovation and Technology Transfer” at ISIS Innovation, University of Oxford, England, UK.

Since 2010, Nedeljko Milosavljević works as a Research Associate at the Innovation Centre of the Faculty of Technology and Metallurgy. He has authored or co-authored 18 papers in international scientific journals. His research interests are technology and knowledge transfer, as well as polymer science and engineering.

DR. NEDELJKO MILOSAVLJEVIĆ

Director of the Centre for Technology Transfer,
University of Belgrade

nedeljko.milosavljevic@rect.bg.ac.rs
www.ctt.bg.ac.rs

He is the Vice President of the Association of European Science and Technology Transfer Professional (ASTP-Proton), member of the Association of University Technology Managers (AUTM, USA), National Association Advisory Committee (NAAC), High Energy Physics Technology Transfer Network (HEPTech), Enterprise Europe Network, Technology Brokerage Network in Serbia and Network of Local Innovation Access Points.



Since 2014, Dr. Lazović has been working as the Head of the Innovation Centre at the Institute of Physics in Belgrade. Previously (2011-2013), as a postdoctoral researcher, he was working on technology transfer and commercialization for the Department of Surface Engineering and Optoelectronics at Jožef Stefan Institute.

Over the last three years, he was actively involved in the implementation of Serbia Innovation Project at the Institute of Physics, Belgrade - a project financed by the EU and managed by the World Bank on behalf of the government of the Republic of Serbia. Dr. Lazović holds one patent application which is in the final stage of acceptance.

Saša Lazović has a M. Sc. in Physics (2007) and a Ph.D. in Physics (2010) from the Faculty of Physics, University of Belgrade, Serbia.

DR. SAŠA LAZOVIĆ

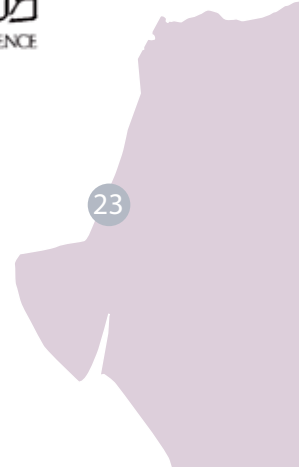
Head of Innovation Centre, Institute of Physics,
University of Belgrade

lazovic@ipb.ac.rs
www.ipb.ac.rs



Since 2011, he is an Assistant Research Professor at the EU and National Centre of Excellence for Non-equilibrium Processes, Institute of Physics Belgrade, University of Belgrade, Serbia.

23. Weizmann Institute of Science



Weizmann Institute of Science, Israel

The Weizmann Institute of Science is one of the world's leading multidisciplinary research institutions. Hundreds of scientists, laboratory technicians and research students working on its lushly landscaped campus embark daily on fascinating journeys into the unknown, seeking to improve our understanding of nature and our place within it.

It is the spirit of inquiry so characteristic of human race, which guides the scientists. It is this spirit that propelled humans upward along the evolutionary ladder, helping them reach their utmost heights. It prompted humankind to pursue agriculture, learn to build lodgings, invent writing, harness electricity to power emerging technologies, observe distant galaxies, design drugs to combat various diseases, develop new materials and decipher the genetic code embedded in all the plants and animals on Earth.

The quest to maintain this increasing momentum compels Weizmann Institute scientists to seek out places that have not yet been reached by the human mind. What awaits us in these places? No one has the answer

to this question. But one thing is certain – the journey fired by curiosity will lead onward to a better future.

Groundbreaking medical and technological applications that have emerged from basic research conducted by Weizmann Institute scientists include:

- Amniocentesis, a prenatal diagnostic test for the fetus
- Sophisticated laser systems for high precision diamond cutting
- A method for growing hybrid seeds that prevents the transmission of disease from one generation to the next and helps protect edible plants from pests
- Affinity chromatography, a key tool for purifying biological materials in the biotechnology industry
- Living polymerization, one of the most fundamental techniques of the modern polymer industry

For solving the structure of the ribosome, the cell's protein factory, and revealing its means of action, the Institute's Prof. Ada Yonath was awarded a Nobel Prize in Chemistry. Her research should speed the development of antibiotic drugs that are more efficient, especially against antibiotic resistant strains.



GEORGE MIKENBERG

Weizmann Institute
of Science

giora.milkenberg@cern.ch

George was born in Argentina on 15th of July 1947. When he finished High School in Nicaragua in 1964, he started university studies at Hebrew University in Jerusalem (1965). In 1967 he moved to Chile, where he completed his Licenciata Degree at Pontifical Universidad Catolica de Chile (1969). Afterwards he completed his MSc and PhD at the Weizmann Institute (1974). During his Post-Doc at Fermilab (1974-1977) he measured the size of the π , K, P and their anti-particles; designed, constructed and commissioned the first particle detector using optical fibers.

In 1997 he joined the Weizmann Institute staff and was sent to DESY in Hamburg (1997-1982), where he designed, constructed and commissioned the second calorimeter in the world using wavelength shifters and did the analysis to confirm the discovery of the gluon using neutral energy; measured the QED process $e^+e^- \rightarrow \gamma\gamma$ to obtain limits in contact interactions.

George started an Israeli group (Tel-Aviv, Technion, Weizmann) participation in the OPAL experiment at the Large e^+e^- Collider (LEP at CERN) (1982-1996). He developed the construction technique for a new type of gaseous detector (TGC) and was responsible for the construction, commissioning and running of the Hadron Pole Tip Calorimeter of the OPAL Experiment.

He was OPAL Experiment Physics Coordinator during the preparatory phase (1986-1989) and during the exploitation phase of the Experiment (1992-1994).

He drafted the first agreement with CERN for Israel to become the first Paying Observer Country to the CERN Council (1991). He became the Industrial Liaison Officer for Israel (1992-now) and managed to bring orders by CERN for Israeli High Tech products exceeding a total of 30M US\$.

In 1992 he became a member of the High Energy Physics Division of the European Physical Society. He brought the large EPS conference to Jerusalem (1997); became the Secretary of the Division (1997-1999) and its Chair (1999-2001), introducing major changes to its conferences and prizes.

In 1994 George started the Israeli Collaboration that participates in the ATLAS Experiment at Large Hadron Collider at CERN. He coordinated the construction of the MUON Trigger System. From 1999 to 2008 he was the Project Leader of the ATLAS MUON Spectrometer.

During 2003-2011 he has been a member of the Restricted European Committee for Future Accelerators that evaluates the HEP situation in all European Countries.

24. Wigner Research Center for Physics



Wigner RCP, Hungary

The Wigner Research Centre for Physics (Wigner RCP) is one of the largest research institutes of the Hungarian Academy of Sciences. It is located in Budapest and 350 researchers and engineers are working in it.

The mission of the Wigner RCP is to perform basic research in the fields of particle and nuclear physics, plasma physics, space science and technology, solid state physics, neutron physics, optics and information technology. The Wigner RCP is willing to increase its activities on knowledge and technology transfer and

to apply the collected results in other fields of physics, engineering and industry.

The Wigner RCP joined to HEPTECH in 2013 to increase these TT activities and learn different methods of innovation. Recently an expert group has been established to help this innovation activity. The researchers of the Wigner RCP are looking forward to participate in different HORIZON 2020 projects in order to explore the opportunities of technology transfer during the next years.



Peter Levai is the Director General of the MTA Wigner Research Centre for Physics since 2012. He is corresponding member of MTA (Hungarian Academy of Sciences). He obtained his Master degree in Physics in 1986 and his PhD in high energy nuclear physics in 1989 at the Eötvös University, Budapest.

He has continued his research activity in the United States, as a post-doc. He returned home to the KFKI Research Institute for Particle and Nuclear Physics (KFKI RMKI) - the predecessor of the Wigner RCP - in 1992, but continued collaborating with his USA colleagues working in universities and national laboratories, spending half of his time in foreign countries. He received the degree Doctor of Science at MTA and his habilitation at Eötvös University in 2000. He became the head of the Theoretical Physics Department at the KFKI RMKI in 2002.

PETER LEVAI

Director General of MTA Wigner
Research Centre for Physics

levai.peter@wigner.mta.hu

From 2005 he has been a group leader and coordinator of a Hungarian research group at ALICE in CERN, and from 2010 Hungary's representative at CERN Council. He was elected in 2010 as the corresponding member of MTA and supports Hungarian participation in big scientific cooperations.



Zsuzsanna Tandi joined Wigner Research Centre for Physics as an innovation adviser at the beginning of 2013. Her job is to build up the Technology Transfer Office aimed at implementing the organisation's innovation policy and establishing its international relations network.

Zsuzsanna has a degree in telecommunication engineering and a degree as a Certified Foreign Affairs Specialist.

She has an extensive experimental background in development of the commercialisation of research results and caring for all aspects of R&D, Technology Transfer, intellectual property, spin-off creation and contact with the industry.

ZSUZSANNA TANDI

Innovation Advisor
HEPTech Representative
of MTA Wigner RCP

tandi.zsuzsanna@wigner.mta.hu

Zsuzsanna is also responsible for developing and maintaining relations between industry and Wigner, an activity, the most important aspect of which is to connect the distance between research motivated innovation and its applications in the industrial world.

She is a keen organiser trying to extend cooperation between the Hungarian Academy of Sciences and its business partners.



The background features large, stylized numbers '2016' in a teal color, overlaid with semi-transparent pink shapes. The numbers are positioned on the right side of the page.

NOTES



