CERN Bulletin

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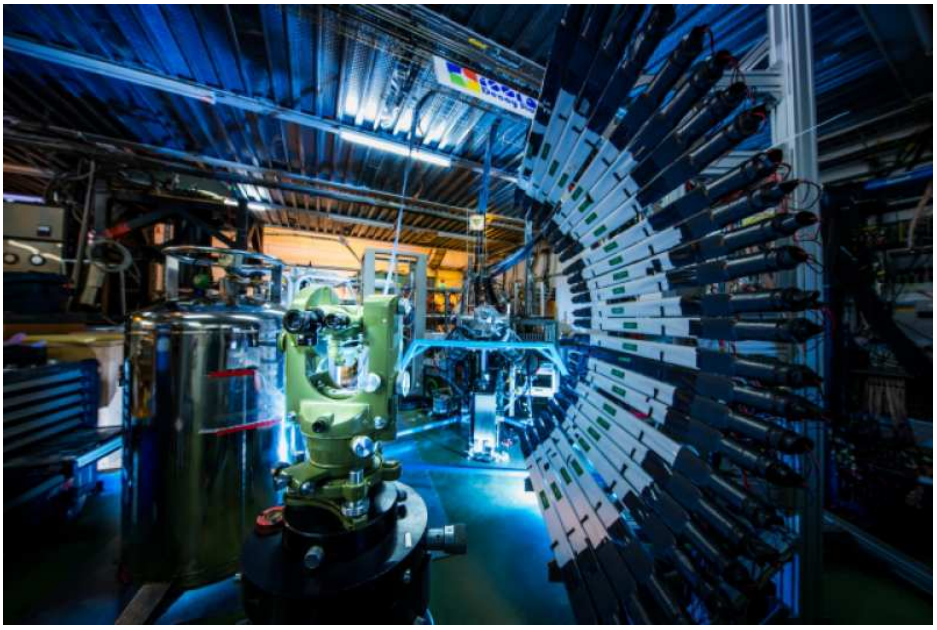
ISOLDE: 50 YEARS OF CUTTING-EDGE SCIENCE BENEFITTING SOCIETY

50 years ago, the first radioactive beam at ISOLDE was produced



The travelling nature of the multiple experiments at the facility, as well as a high turnover of research groups contributes to a constant state of flux in the ISOLDE experimental hall. (Image: Andrew Hara/CERN)

Last Monday, 16 October 2017, exactly 50 years to the day after the first radioactive beam was produced at ISOLDE in 1967, we celebrated 50 years of physics at the facility.

ISOLDE is the longest-running experimental facility at CERN. What started as a small nuclear physics experiment, has now grown over half a century into a facility that provides beam for over 50 experiments, and 500 users. (Read: Meet ISOLDE: Where did it all begin? (*https://home.cern/about/updates/2017/10/meet-isolde-where-did-it-all-begin*)).

In this period, 113 isotopes have been discovered for the first time at ISOLDE, granting CERN fifth place worldwide on the Top 25 Labs for Nuclide Discovery list. With the long-awaited HIE-ISOLDE upgrade (Read: Future physics with HIE-ISOLDE (*https://home.cern/about/updates/2017/10/meet-isolde-future-physics-hie-isolde*)), due to be completed next year, the scientists at ISOLDE will have the chance to study ever more exotic nuclei, be able to answer more of our questions about our universe and perhaps discover even more isotopes.

But ISOLDE does much more than make discoveries.

(Continued on page 2)

A WORD FROM THE DIRECTOR GENERAL

TACKLING OCCUPATIONAL STRESS

Surveys and studies dating back to the 1990s show that stress in the workplace is on the rise. This has serious consequences for the individuals concerned in terms of their physical and mental health, as well as for their general well-being and personal relationships. For that reason alone, it is incumbent on any responsible employer to address the issue head on. Occupational stress also has a negative impact on productivity due to deteriorating working relationships, reduced quantity and quality of output, and absences.

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A WORD FROM THE DIRECTOR GENERAL

TACKLING OCCUPATIONAL STRESS

In a survey conducted in 2013 by the European Agency for Safety and Health at Work, around half of the respondents considered workplace stress to be common, and that figure rose according to the size of the organisation. More recently, the European Observatory of Working Life, EurWORK, has published a range of reports studying many working environments and sectors, all pointing to the same conclusion: chronic stress is a major challenge for organisations and their employees. All the surveys show that the prevalence of occupational stress is particularly high in circumstances where an individual's ability to control the demands of work is threatened, and stress is further intensified when no help is available from colleagues and/or supervisors. This is as true as CERN as it is elsewhere, and addressing the underlying causes is a challenge for the whole CERN community. The well-being of our people is our number one priority, and is something we are addressing with some urgency.

Following several indicators from both inside and outside the Laboratory, we felt it was time to take action on occupational stress. The need to act has also emerged as a key recommendation from an External Review Committee established in 2016 to evaluate the Finance and Human Resources sector.

We have therefore established a dedicated multidisciplinary project team built around members of the Human Resources (HR) department and the Occupation Health and Safety and Environmental Protection (HSE) unit, along with the Staff Association and the CERN Ombud. Its brief is to promote and improve the quality of working life at CERN, and to this end it will be examining psychosocial and mental health issues, setting up proactive stress monitoring and management, and benchmarking against other organisations.

Over the coming weeks and months, the team will be working to put a series of tangible measures in place to prevent stress, increase individual coping abilities and enhance existing support systems. Among the team's first actions will be an awareness-raising campaign, scheduled for early 2018. Do look out for it, and I would like to encourage you to play your part in improving the quality of working life for all of us at CERN.

Fabiola Gianotti
Director-General

ISOLDE: 50 YEARS OF CUTTING-EDGE SCIENCE BENEFITTING SOCIETY

The facility is helping to make computers faster with its research into solid state physics, and is currently contributing research on ways to treat cancer with radiation.

With the advent of CERN-MEDICIS (Read: What can ISOLDE do for cancer research?), (*https://home.cern/about/updates/2017/10/meet-isolde-what-can-isolde-do-cancer-research*) a new facility attached to ISOLDE, which will start producing isotopes later this year, ISOLDE will have even more scope for helping make breakthroughs in medical research.

Radioactive isotopes are already widely used by the medical community, for imaging, diagnostics and radiation therapy. But many of the isotopes currently used are not perfect; they don't target tumours closely enough, or a different type of radiation might be better suited for the imaging process. MEDICIS hopes to be able to produce isotopes that more accurately meet the needs of medical professionals.

To mark the anniversary, ISOLDE's user community came together to publish a portrait of the Laboratory, with multiple open access reports looking at the different physics and applications currently studied at ISOLDE.

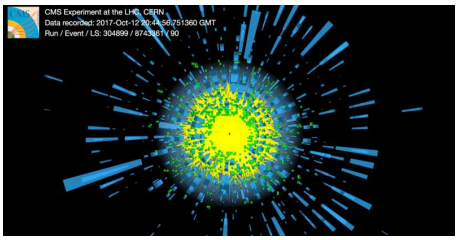
With fifty years of history and experience to back these new upgrades and clear benefits for our society ISOLDE is, and will remain, one of the best facilities in the world for nuclear physics research, and a jewel in CERN's crown.

Find out more about ISOLDE by reading Meet ISOLDE (*http://home.cern/about/updates/series/meet-isolde*) *and watching the short documentary series below (subtitles available in English and French).*

Harriet Jarlett

LHC REPORT: XENON IN ACTION

The LHC had the unique opportunity of colliding xenon nuclei over several hours



One of the xenon ion collisions recorded by the CMS detector. (Image: CMS/CERN)

Once more, the LHC has revealed a new side to its extraordinary flexibility. So far, collisions of protons, lead nuclei, and protons with lead nuclei have been performed on a regular basis. On Thursday 12 October, a new species joined this particle zoo. Fully stripped xenon (Xe) nuclei were successfully injected into both beam pipes, accelerated and collided for the very first time. This special heavy-ion physics run was added into the schedule just after a high-intensity proton physics fill, and was completed in less than one day. The four LHC experiments collected Xe-Xe collisions at a centre-of-mass energy of 5.44 TeV per colliding nucleon pair.

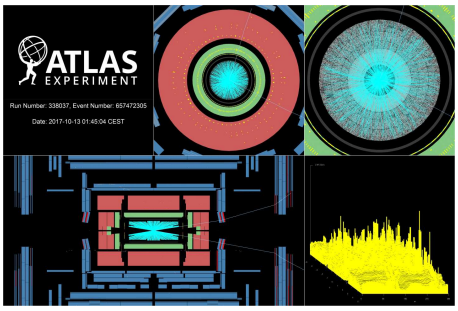
As part of the NA61 fixed-target physics programme, the injector complex currently provides Xe ions to the SPS. This opened up the possibility of also extracting Xe beams and sending them to the LHC. Even though xenon collisions were not originally part of the LHC schedule, the physics results obtained during the stunningly successful 18-hour proton-lead pilot run in 2012 supported the idea of a short Xe-Xe run following a similar rapid implementation plan. This was a unique opportunity, since Xe, or indeed any other any other particle apart from protons and lead nuclei, may never again be available in the injector chain. Colliding xenon nuclei at the LHC beam energy of 2.72 TeV per nucleon, opens up significant new physics potential, elucidating the system-size dependence of the rich phenomena observed in the Quark-Gluon Plasma. This was the highest energy to which such nuclei have ever been accelerated and the xenon isotope with an atomic mass number of A=129 and a charge of Z=54 probes an intermediate region between the LHC's lead (A=208, Z=82) and proton (A=1, Z=1) beams.

For this year's heavy-ion operation of the CERN accelerator complex, the ion source connected to Linac3 was modified to produce xenon ions. After being stripped of all electrons on the way from the linac through LEIR and the PS, the Xe nuclei arrive in the SPS, from where they will be extracted to the North Area for eight weeks from 23 October. Injecting them into the LHC required careful setup of a special SPS cycle and optimisation of the beam quality (emittance and intensity) to collider level in the injectors. In order to minimise the setup time for this run in the LHC and give the experiments more time to take data, the current LHC proton physics configuration was used with only minor modifications. Nevertheless, the RF frequency, the synchronisation between the SPS and the LHC, the transfer lines and the injection kickers all had to be adapted to the new beam. The only change made to the collision configuration was a reduction of the crossing angle in the ALICE detector to allow neutrons to pass unimpeded to its zero-degree calorimeter (ZDC) forward detectors.

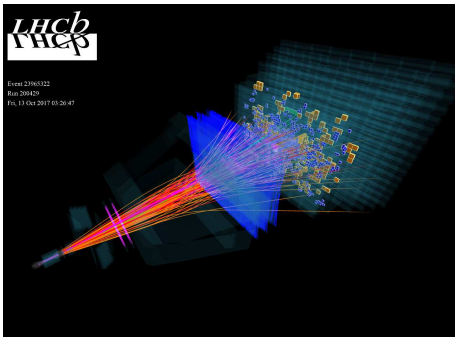
Establishing the first circulating Xe bunch in the LHC and optimising the beam parameters took about four hours. The LHC was then filled with 20 bunches per ring, providing between 8 and 16 collisions per experiment. This was the maximum allowed, because the total number of particles per beam had to stay below the 'safe beam limit' of 3×10^{11} charges for reasons of machine protection. The subsequent acceleration, squeeze and collision-finding steps went smoothly. Collimation loss maps were carried out to certify safe operation with the new beam species (heavy ions have much more complicated interactions with collimators than protons). Unfortunately, this first fill was lost at the very moment that 'Stable Beams' were declared. The LHC was refilled, taking advantage of an opportunity to accept higher bunch intensity and, therefore, luminosity. This time, the LHC went on to successfully deliver 6 hours of physics data, during which ATLAS and CMS collected a few μb^{-1} of integrated luminosity. ALICE and LHCb collected considerably less because of the focusing scheme inherited from proton operation. At the end of the fill, scans were performed in LHCb and CMS for luminosity calibration and the fill ended with some additional loss maps for collimation studies.

Along the way, we obtained a wealth of data on the behaviour of the LHC itself with the new species of beam particle. This will allow us to test theories of how the beams evolve, their interactions with collimators and the ultra-peripheral collision effects that can affect collider performance.

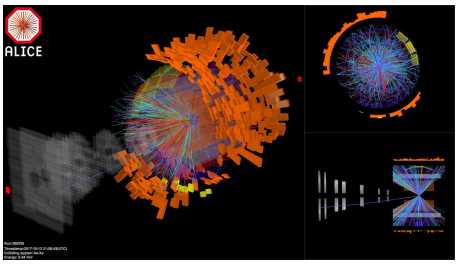
Following this fill for physics data-taking, the beams were renewed with a similar number of Xe ions to perform a machine development study on the test installation for crystal collimation at high energy.



A xenon ion collision recorded by the ATLAS detector. (Image: ATLAS/CERN)



A xenon ion collision recorded by the LHCb detector. (Image: LHCb/CERN)



A xenon ion collision recorded by the ALICE detector. (Image: ALICE/CERN)

Michaela Schaumann for the LHC team

TACKLING HUMANITARIAN CHALLENGES AT CERN

The fourth edition of THE Port Humanitarian Hackathon took place at CERN's IdeaSquare

The participants in this year's THE Port Hackathon spent 60 hours at CERN's IdeaSquare discussing, programming and creating prototypes to solve humanitarian problems. (Image: AndreyART Photography)

From 6 to 8 October, THE Port Association held the fourth edition of the Humanitarian Hackathon at CERN's IdeaSquare. This year, 64 participants, 12 mentors and 10 coaches from THE Port gathered together to tackle five humanitarian-related challenges.

After a two-month phase of preparation by videoconference and a 60-hour productive sprint, the teams created six prototypes and proofs of concept, which were presented in CERN's Globe of Science and Innovation in front of a local and international audience.

The teams created a wearable device monitoring the evolution of Parkinson's disease symptoms for research purposes, a cheap, ready-to-use and sonified wobble board designed for use by lower-limb amputees' performing their own physiotherapy, and a decentralised open network for better communication between non-profit governmental organisations.

Three smartphone applications were also developed: the first is able to make an enhanced age assessment of migrant children, the second is connected to a smart recycling bin with a recognition and reward system, aiming to promote environmental education and to improve the conditions in refugee camps, and the third is able to assess what is needed to achieve renewable electrification in remote rural communities.

The participants were an intercultural and interdisciplinary blend of humanitarians, scientists, engineers, computer scientists, students, entrepreneurs and communicators. In total, 40 nationalities were represented, with people coming from as far as Kenya, Martinique, India, Taiwan and the USA to take part in the Humanitarian Hackathon.

Now that this first step in THE Port's mission has been successfully accomplished, it is time to bring those projects further towards implementation in the field. To do so, THE Port will continue supporting the teams by facilitating contact within its networks and community, by organising key meetings and contextual side-events and by supporting their communication efforts.

If you are interested in supporting or participating in one of the above-mentioned projects, contact THE Port at info@theport.ch.

A recording of the final presentation can be found at https://cdsweb.cern.ch/record/2288117.

A member of the REFEET team working on the prototype of an affordable smart wobble board for gait training of lower-limb amputees that provides visual and auditory feedback to the patient. (Image: AndreyART Photography)

Bertrand Michels

COMPUTER SECURITY: ENTER THE NEXT LEVEL: DOXWARE

Now attackers have started increasing the pressure, and now comes the next level: “Doxware”.

Do you recall “WannaCry”, the nasty malware of early 2017 that tried to infect your computer and encrypt all its contents? It was unfortunate for those whose device got encrypted, as all data was lost unless you dared to pay the ransom requested by the attackers. And even if you'd paid, it was not certain that you would get your data back – that's why we usually do not suggest paying any ransom. . . Now attackers have started increasing the pressure. In the past, infections blocked computers, stopping them from working, spreading their infection, or making fun of their owners. Then, networks of devices were misused to spam the world, attack web sites and web services. Staying silent and monitoring owner activity came next: spying on your banking activities, your passwords, etc. “Ransomware” like “WannaCry” holding your data hostage was the last level (“Ransomware - when it is too late... "). And now comes the next level: ‘Doxware’.

For many of us, our computer, and even more so our laptop, smartphone or tablet, are the central digital focal points of our lives: we store our personal photos and videos on them, as well as lots of private documents, and we use them as a central hub to access our bank accounts, to communicate with our closest friends (on Facebook, Twitter), or to consult our favourite health application to check out our wellbeing. Where is your smartphone now? You recall that panic when you do not know where it is? With a successful attack against our devices, lots is lost. ‘Ransomware’ destroys our local

data, malware like 'Dridex' extracts banking and transaction details to extort money, other malware aims at harvesting the passwords for your social media accounts, etc. Already bad, isn't it? 'Doxware' is taking this to the next level. The word stems from 'Doxing' (where 'dox' is an abbreviation for 'documents'), which is the Internet-based practice of researching and broadcasting private or identifiable information (especially personally identifiable information) about an individual or organisation. Like 'Ransomware', 'Doxware' will encrypt your hard disk and ask you to pay some ransom money to get that data decrypted. But this time, a simple backup won't help as the attackers will also threaten to expose all your personal and private data on the Internet if you don't pay... It's a difficult call to make, isn't it?

Thus, keeping your devices secure is once more essential for your privacy and the protection of your (digital) belongings. Keeping your computer, smartphone and tablet up-to-date is one of the central paradigms of computer security. Only if they are kept updated can you be sure that at least the known vulnerabilities and weaknesses are fixed and your device cannot be exploited:

- If you have a personal computer with your own Windows operating system, check for 'Windows Update' in the program listing on the Start button. Switch to the recommended 'automatic' update method!
- On Linux distributions, make sure that you regularly run 'yum update' or even better, enable automatic updates. Don't forget to reboot your computer when a new kernel is installed, in order to properly apply kernel patches!
- For Apple Macs, use the software update mechanism, which is accessible under the Apple menu.
- For iOS or Android devices, check out the system settings.

Running antivirus software on your Windows or Mac device is a great plus, giving you additional protection and prevention capabilities. And such software comes for free for CERN personnel. The CERN anti-virus software for Windows and Mac can also be used at home... for free! If you can, get rid of Acrobat Reader, Flash and Java as these applications are regularly exploited to break into computers. If you can't, make sure that these and any other applications are kept up-to-date. If you are in doubt (and are running a Windows system), you can install and run this fine program from Secunia which checks your computer for outdated software. Take care with your password and only provide it to websites you fully trust. Never put your passwords in e-mails, not even in reply to someone asking for it. And have separate passwords for different web services. Finally, infection vectors are usually either malicious e-mails or websites. Hence, STOP – THINK – DON'T CLICK when considering clicking on a link or opening an attachment. Only proceed if you trust the origin of the attachment/link. Here are some hints on how to identify malicious e-mails. (*https://security.web.cern.ch/security/recommendations/en/malicious_email.shtml*) Yes, it is very difficult. But it is this weakness of human nature that attackers try to exploit first...

Do you want to learn more about computer security incidents and issues at CERN? Follow our Monthly Report (http://cern.ch/security/reports/en/monthly_reports.shtml). For further information, questions or help, visit our website (http://cern.ch/Computer.Security) or contact us at Computer.Security@cern.ch.

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The Computer Security Team

COLLABORATION AGREEMENT BETWEEN CERN AND NTNU

CERN and the Norwegian University of Science and Technology (NTNU) will work together in all domains of science, technology and engineering

Toril A. Nagelhus Hernes (NTNU's Pro-Rector for Innovation) and Frédérick Bordry (CERN's Director for Accelerators and Technology) after signing the collaboration agreement. (Image: Sophia Bennett/CERN)

On 19 October, CERN signed a collaboration agreement with the Norwegian University of Science and Technology (NTNU), Norway's largest engineering school.

NTNU and CERN have a long tradition of collaboration in training students through the CERN doctoral, fellowship and technical student programmes and for joint projects in the field of knowledge and technology transfer. In many cases, these programmes serve as a gateway to research and development projects.

With this agreement, NTNU and CERN will further their shared wish to work together in training a new generation of engineers in all fields of interest common to both institutes, such as electrical, electronic, mechanical and process engineering, mechatronics, information and communications technology, artificial intelligence and machine learning.

CERN TO APPLY FOR SESAME OBSERVER STATUS

The proposal for CERN to become a SESAME Observer will be presented at the SESAME Council session in December

CERN Director General Fabiola Gianotti speaking at the opening ceremony of SESAME on 16 May 2017. (Image : Noemi Caraban Gonzalez/CERN)

At its last meeting, the CERN Council approved the Management's proposal for CERN to apply to become an Observer to the SESAME Council.

SESAME is the new synchrotron for the Middle East and neighbouring regions. The machine started operation last January and the first experiments should start in the coming weeks.

What makes SESAME unique is the collaboration it has brought about between scientists from its eight Members in the region: Cyprus, Egypt, Iran, Israel, Jordan, Pakistan, the Palestinian Authority and Turkey.

CERN has been a staunch supporter of SESAME ever since the mid-1990s, when certain discussions in the CERN cafeteria turned to the subject of applying the CERN model to other regions. CERN was established in the aftermath of the Second World War as a place for promoting both excellent science and peaceful collaboration between formerly belligerent nations. Could CERN's success be emulated elsewhere?

The idea took root in the Middle East, and slowly began to grow. Since then, three former CERN Directors-General have held the position of President of the SESAME Council, and CERN has provided tangible help, with EU support, through the CESSAMag project whereby it supplied the magnet system for SESAME's main ring. CERN is now contributing to another EU project, Open SESAME, which offers valuable training to SESAME staff and users.

Now, with SESAME about to bear fruit as its experimental programme gets under way, it is a natural next step for CERN to apply to become an Observer.

“CERN has always stood by SESAME and offered its valuable support to help bring SESAME to where it is today,” said SESAME Director Khaled Toukan. “The recent vote by the CERN Council giving CERN the go-ahead to apply for Observer status is indeed another pillar of CERN's support, helping SESAME fulfill its goals.” The proposal will be discussed at the next meeting of the SESAME Council in December.

James Gillies

FIRE DRILL AT TWO CERN BUILDINGS

A mock-up fire emergency was organised at two of CERN's biggest office buildings

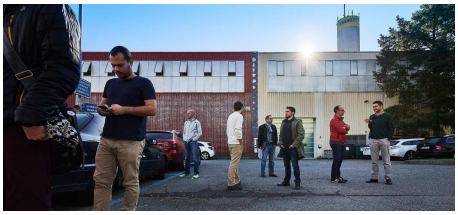
During the emergency drill, everybody gathered at the meeting point, demonstrating the successful adoption of a culture of safety at CERN. (Image: Julien Ordan/CERN)

On 5 October, at 10.00 a.m., the fire alarms in two of the biggest office buildings on CERN's Meyrin site – 30 and 112 – were set off for a fire drill. The safety procedure was organised by the Safety Offices of the Engineering and Technology departments, in collaboration with the CERN Fire Brigade.

“It took 12 minutes to complete all the required exercises – exiting the buildings, gathering at the nearest meeting point and calmly waiting for the Fire Brigade to arrive. This is a very good result given the fact that nearly 400 people work in the two buildings,” said Simon Chérault, deputy safety officer of the Engineering department.

The exercise was carried out thanks to good coordination between the Territorial Safety Officers, the Emergency Guides and the Fire Brigade. “Evacuation drills allow us to test the working conditions and effectiveness of all fire and emergency equipment. They also strengthen the safety culture already adopted by the personnel. The feedback we receive from such exercises helps us implement continuous improvement of the safety measures at CERN,” explained Simon.

A high level of safety for all people on its sites is a key priority for CERN. Each year, fire drills are organised for around 20 different buildings. Recently, another type of safety exercise – a mock road accident – was organised by CERN in collaboration with the University Hospitals of Geneva (HUG).



The first person exited less than a minute after the fire alarm went off. After less than six minutes both buildings were completely empty. (Image: Julien Ordan/CERN)

The emergency guides play a key role. They ensure fast, organised and smooth evacuation of the buildings and inform the arriving firefighters about the current situation. (Image: Julien Ordan/CERN)

Iva Raynova

Official communications

19.10.2017: ANNUAL INFORMATION MEETING OF THE PENSION FUND

All members and beneficiaries of the Pension Fund are invited to attend the

Annual Information Meeting to be held in the Council Room (503-1-001), on Thursday 19 October 2017, from 10:30 a.m. to 12:30 a.m.

Following a presentation by the Chief Executive Officer of the Fund there will be a Questions and Answers session.

Copies of the 2016 Pension Fund Annual Report & Financial Statements are already available in accessible PDF on the Pension Fund website (*http://pensionfund.cern.ch/en/social-security-for-personnel/accounts-and-financial-statements/annual-report-financial-statements*), and will also be distributed at the annual meeting.

Coffee and croissants will be served prior to the meeting as of 10:00 a.m.

Announcements

CERN-WIDE INVENTORY BY THE SMB DEPARTMENT

As part of its role to maintain the infrastructure (cleaning, upkeep and repairs), the SMB department will be carrying out an inventory of all CERN premises, starting in November.

To this end, a technician will need to enter every room in every building to collect the necessary information and to take one or more panoramic (360°) photos.

The photos will be taken in compliance with the privacy protection rules and no faces will be visible in them. The image resolution will not be high enough, for example, for the text of a document to be legible. The photos will be posted on https://gis.cern.ch/, and access will be restricted to the personnel responsible for maintenance, safety/security and space management activities at CERN.

The occupants of each office will be informed by e-mail a few days before the technician starts work in their building and will be asked to remove any personal items that they don't want to appear in the photos.

For more information, please contact floor.maps@cern.ch.

Thank you for your understanding.

The SMB department

DARK MATTER DAY AT CERN – DON'T BE LEFT IN THE DARK!

On Tuesday 31 October, the world will celebrate the historic hunt for the unseen—what scientists usually refer to as dark matter. From 20h00, the Globe of science and innovation will open its door to the public and thus join the global celebration.

Invisible dark matter makes up most of the universe – but we can only detect it from its gravitational effects. **Learn from our experts about the experiments and theories that seek to provide us with a deeper understanding of this strange matter.**

Katharine Leney, Researcher on the ATLAS experiment at CERN will introduce the evening and present the basic principles of dark matter using her bespoke dark matter cake; **Wessel Valkenburg**, Research Fellow at the Theory Department at CERN will explain the *how* and *why* research is carried out on dark matter.

Dark Matter Day falls on Halloween! Why don't you come dressed-up... as dark matter! The best costume will win a prize. Discover the worldwide programme of events on www.darkmatterday.com.

Further information:

- Free entry – Registration mandatory
- Event in English with simultaneous interpretation into French
- Full programme and registration available at: https://indico.cern.ch/e/darkmatterday.

FINLAND'S 100 YEARS OF INDEPENDENCE CELEBRATION AT CERN!

This year, Finland celebrates 100 years as an independent state. During this period, Finland has evolved to be one of the leading countries for innovation in the world, and to celebrate our centenary, we bring some of the latest Finnish innovations to CERN.

Our Nordic country has a huge variety of expertise in different fields. Many Finnish companies collaborate and do business with CERN.

The Helsinki Institute of Physics (HIP) and CERN **invite you to join Finland at CERN from November 1 to 3 at IdeaSquare and the Globe of Science and Innovation**.

Kindly register here (*https://events.hip.fi/finlandatcern/registration/*) for any number of events as places are limited.

The main focus of the event will be Finnish innovation, which will be discussed across three separate days. These discussions, to be held at the Globe and at IdeaSquare, will focus on collaboration, networking, business R&D, finding new partners, working towards innovation and creativity.

Top Finnish R&D initiatives will be presented and examined, as will business perspectives. Come and learn more about Finnish insight, and indulge in delicacies unique to the Nordic country.

On the main day of the event, Thursday, 2 November, keynote speeches will be delivered by **Tuija Pulkkinen** (Vice President for Research and Innovation, Aalto University), **Petteri Taalas** (Secretary-General of the World Meteorologial Organization), **Johanna Pystynen** (Director of People Operations at software company Vincit who collaborates with CERN on HR matters), **Annastiina Hintsa** (Head of Services, Hintsa Performance – a company that has coached multiple drivers and teams in Formula 1) and **Samuli Siltanen** (Professor of Industrial Mathematics).

For more information on the event, please visit https://events.hip.fi/finlandatcern/.

We hope to see you there!

Best regards,

Paula Eerola
Director of Helsinki Institute of Physics

NO MORE ABANDONED LUGGAGE

Luggage left unattended at CERN demands action (evacuation of premises, possible for several hours, and mobilisation of guards, firefighters, police, in some cases even bomb disposal experts) that is costly for CERN and also has an impact on the people evacuated (sometimes several hundred people), whose work is interrupted for as long as it takes to resolve the situation.

With a view to raising awareness among people working at CERN and visitors alike and to combatting this problem, posters (see image) have been put up in some of the site's busiest areas, such as Buildings 33 and 55, the restaurants and the hotels/hostels. In addition, luggage tags (see below) are available at the site entrances and in the hotels/hostels.

Never leave your luggage unattended and make sure it's labelled so that you can be contacted if necessary!

Call 74444 to report any abandoned luggage.

Note that abandoned luggage may be destroyed.

If you think a poster is needed in your building or if you would like to obtain luggage tags, please contact the Security Service.

Security is everyone's responsibility; we're counting on you.

The SMB-DI group

THE PALEXPO 10 KM

More than 500 highly motivated participants, a mixture of competitive sportspeople and fun runners, will toe the starting line on Saturday, 11 November for the seventh edition of the Palexpo 10-km race.

Picture this: a 10-kilometre relay route winding its way through the stands of the *Automnales* fair – sounds fun, doesn't it? The route through the stands and the basements of Palexpo has been marked out meticulously and scrutinised by seasoned athletes.

Younger participants (those born between 2001 and 2005) can also take part by signing up for the junior race, which covers a total of 6 km (3 km per team member).

The race is a relay for teams of two, with male, female, mixed and junior categories available.

Saturday, 11 November at 9 a.m. / **Open to all** / **Registration fee applies**
For more information, please write to 10km@palexpo.ch or see the race's dedicated webpage (in French).

Don't forget! This year, CERN is the guest of honour at the *Automnales* fair. We're still looking for volunteers, so why not take part as a CERN ambassador?! Click here (*http://cern.ch/go/P69K*) for more information.

DON'T MISS THE GENEVA PEACE WEEK!

Geneva Peace Week is a collective action initiative facilitated by the United Nations Office at Geneva (UNOG), the Graduate Institute of International and Development Studies and the Geneva Peacebuilding Platform in collaboration with the Swiss Confederation.

This year, Geneva Peace Week will take place from 6 to 10 November 2017. In this fourth edition, Geneva Peace Week will, for the first time, focus on the theme "Prevention and effective pathways for implementation".

As a partner of Geneva Peace Week, Rotary International will organise several events, in particular a workshop entitled "Education/Science, a pathway to Peace", in which Barbora Bruant Gulejova, a PhD student in CERN's Education, Communication and Outreach group, will take part.

Also, note that this year's edition of the Geneva Lecture Series is organised in the framework of the Geneva Peace Week. This year's Geneva Lecture Series will open with welcoming remarks by the Director-General of UN Geneva, Mr. Michael Møller, and a keynote speech by the President and Chief Legal Officer of Microsoft, Mr. Brad Smith:

"Current Internet Governance Challenges: what's next?"
Thursday, 9 November 2017 from 16:00 to 18:00
Assembly Hall, *Palais des Nations* (Geneva) - More information here (*https://www.unog.ch/unog/website/dg.nsf/%28httpPages%29/3A579B24BAEBF*

B55C1257E3B004BD723?OpenDocument).

Don't miss this opportunity to discover the work of Geneva's international organisations towards peace, rights and well-being across the world.

Geneva Peace Week
When: from 6 to 10 November 2017
Where: various locations in Geneva

(more information here (*http://www.genevapeaceweek.ch/map*) **).**

See the full programme of events here (*http://www.genevapeaceweek.ch/programme*).

FLU VACCINE: PROTECT YOURSELF AND OTHERS

In Switzerland, every year, the flu is responsible for between 100 000 and 250 000 visits to the doctor, 1000 to 5000 hospitalisations and several hundred deaths. In France, the number of medical consultations for flu-like symptoms during the 2016/17 season was estimated at 1.9 million. Of all the patients hospitalised with the flu, 15% were aged between 65 and 74 years old and 56% were aged 75 and over, while 67% of serious cases requiring life support concerned patients aged 65 and over. In addition, the flu is believed to have caused 14 358 deaths, of which 13 136 were among the over-75s.

The flu vaccine has proved its worth by halving the number of flu-related hospitalisations, and it lessens the severity of the symptoms.

Carriers can spread the flu virus without experiencing symptoms themselves, so it is easily passed to vulnerable people for whom it could be fatal.

The flu vaccine is safe, simple and effective and it is officially recommended for the over-65s, pregnant women, obese people (BMI >= 40), and those coming into contact with infants under six months old.

Other adults can also be vaccinated for their own benefit as well as from a more public-spirited perspective, for the benefit of vulnerable people around them.

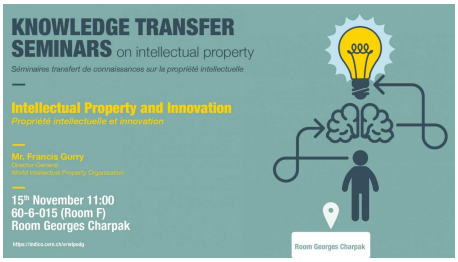
Your doctor, nurse or pharmacist and the members of CERN's Medical Service can answer any questions you may have about the flu vaccine.

The health professionals in the CERN Medical Service can prescribe and administer the vaccine.

More information can be found on our website (https://medical-service.web.cern.ch/).

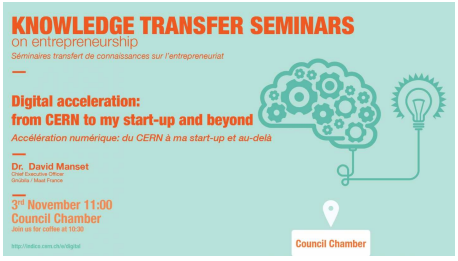
CERN Medical Service

KNOWLEDGE TRANSFER SEMINAR: INTELLECTUAL PROPERTY



More information on Indico (*https://indico.cern.ch/event/673002/*).

KNOWLEDGE TRANSFER SEMINAR: ENTREPRENEURSHIP



Digital acceleration: from CERN to my start-up and beyond.

A talk by David Manset in the Countil Chamber on 3 November at 11am. (*https://indico.cern.ch/event/672227/*)

7 NOVEMBER: CERN OPENLAB INTERNET OF THINGS WORKSHOP

In this first CERN openlab IoT workshop, speakers from academia and industry will present the current state of the key technologies used to build Smart environments, such as Smart Buildings, Campuses and even Cities. Technologies related to Smart Mobility will also be discussed as well as how these technologies are likely to impact on our daily life.

Speakers from CERN will present opportunities for how the Organisation could potentially make use of IoT technologies, and will describe several ongoing prototype projects.

7 November 2017
09:00 - 18:00
IT Amphitheatre (31-3-004)

For more information, visit this Indico page (http://indico.cern.ch/event/669690/overview).

CERN openlab

APPLY NOW FOR THE 2018 ESIPAP SCHOOL

Registration for the 2018 session of the European School of Instrumentation in Particle and Astroparticle Physics (ESIPAP) is now open.

Applications are welcome from staff, fellows and post-graduate students wishing to further their knowledge in the field.

The deadline for submission of the full application form is **1st November 2017**.

For more information please visit http://www.esi-archamps.eu/Thematic-Schools/Discover-ESIPAP.

BANK CARD PAYMENT IN RESTAURANTS 1 AND 2

Since 10 October 2017, it is possible to pay with a bank card at the counters in Restaurants 1 and 2 (Meyrin site).

In Restaurant 3 (Prevessin site), the installation of this new payment system will follow soon.

THE OTHER SIDE OF INNOVATION | 25 OCTOBER | IDEASQUARE

Professor of Technology and Innovation at ETH Zürich, Stefano Brusoni, will give a talk on the divergent process of innovation while Bruno Herbelin, Deputy Director of the Center for Neuroprosthetics at EPFL, will immerse us in the power of embodiment of virtual reality and how researchers can best use this new technology.

Projects developed at IdeaSquare's rapid prototyping facilities will be showcased throughout the day. Among them, discover prototypes addressing societal challenges, developed by multidisciplinary student teams in collaboration with researchers at CERN, through the Challenge Based Innovation programme.

You can take a tour of the space or sign up for introductory workshops in 3D printing, robotics programming, and human-centred design.

The event will take place at IdeaSquare, located in Building 3179 at Point 1, next to the Globe of Science and Innovation from 10.00 a.m. to 7.00 p.m. Access is open to anyone with a CERN badge. The full agenda is available on the Indico page of the event.

Obituaries

JOSE MARQUES BALULA (1970-2017)

We deeply regret to announce the death of Jose Marques Balula on 18 October 2017.

Jose Marques Balula, who was born on 15 April 1970, worked in the BE department and had been at CERN since 1 March 1999.

The Director-General has sent a message of condolence to his family on behalf of the CERN personnel.

Social Affairs

Human Resources Department

Ombud’s corner

WHY I WANTED TO BE THE OMBUD

Like my predecessors, Vincent and Sudeshna, to whom I wish to pay tribute, I would like to share my thoughts with you in Ombud's Corner. This first article will be a chance for you to get to know me and a chance for me to remind you of the framework in which the Ombud operates.

First of all, I am deeply honoured that CERN's Director-General has entrusted me with this sensitive role, which I will hold for the next four years.

When the news of my appointment first began to spread, a lot of people came to congratulate me. Some, however, seemed uncertain as to whether congratulations or pity were in order! I can assure you that I was very keen to take on this role, having expressed my interest as soon as I found out that Sudeshna would be leaving the Organization.

The importance of human relationships, especially in the work place, is something in which I have always been profoundly interested. Each and every person working in an organisation brings to the party their own unique skill-set and personal commitment. I have noticed that it often doesn't take much to make employees feel appreciated and motivated or, conversely, to dampen their enthusiasm. In undertaking this job, I am entering into the heart of workplace relationship dynamics.

As you will have realised, I have worked primarily in the field of human resources, first in the private sector, mainly in Belgium, and, since 2001, at CERN. I led the Compensation and Classification section here for seven years, and was then technical coordinator of the 2010 five-yearly review for two years. Following this, I worked in the Learning and Development Group for a year and, from 2011 onwards, in the Recruitment unit.

Although the role of Ombud is something altogether different, I believe that my experience and range of roles in Human Resources have prepared me very well for it.

In what framework does the Ombud operate?

As you all know, the Ombud exists to provide informal support to anyone at CERN who finds themselves in a conflict situation.

What does that mean? Firstly, it means that when you come to see the Ombud, you are entering a safe space: what is said between you and me will remain absolutely confidential and will not leave the four walls of my office. So when you enter my office, you can lay down your weapons and take off your armour, because the more open you are, the more effectively we can work together to define the situation and the possible ways to resolve it.

It is important to realise that the Ombud is an entirely independent role. I answer to no department and have no particular interest to defend, except for ensuring that CERN remains a place of mutual respect, where conflicts can be resolved quickly and fairly for all. No one can exert pressure on me. With your agreement, I can approach any person in the Organization, whatever his or her status or role. As I will reach retirement age and leave the Organization when my term is up, I do not need to worry about what I might face if I had to rejoin a department.

Finally, the unique nature of my role also lies in its informality. When you come to see me, there is no procedure to follow, no time frame to respect and no report to write. This lack of formality means that we can solve problems flexibly and often quickly.

In a future article, I will explain how a discussion with me will work and how I can help you.

Pierre Gildemyn