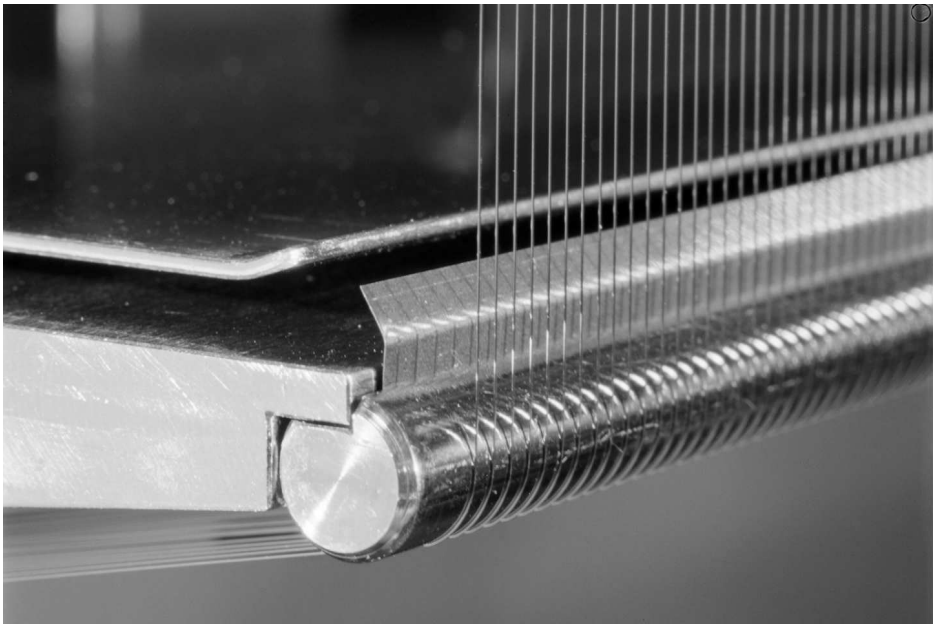
CERN Bulletin

Issue No. 7-8/2017-Wednesday 15 February 2017
More articles at *http://home.cern/cern-people*

USING A CRYSTAL TO EXTRACT BEAM?



These taut wires, 60 μm in diameter, are part of the electrostatic septa in the SPS. More than 10 000 wires are needed to extract protons at 400 GeV. The study group is attempting to reduce losses on these wires using bent silicon crystals. (Image: CERN)

The aim of the SHiP (Search for Hidden Particles) experiment, a proposed project currently being studied by CERN's Physics Beyond Colliders (PBC) group, is to search directly for hidden particles that could explain certain beyond-Standard-Model phenomena.

If approved, SHiP will use 400-GeV beams from the Super Proton Synchrotron (SPS), which will be directed at a fixed target at the end of a 1-kilometre beam transfer line.

However, to have any chance of identifying the hidden particles, the researchers have to control the background noise generated when the beam hits the target. Slow extraction of the beam from the SPS achieves this by significantly reducing the number of protons that hit the target each second.

The standard slow-extraction method is known as "resonant extraction". It allows the production of long spills lasting for seconds in the extraction line. This is done using extraction sextupoles that cause the particles in the beam to move in an unstable but controlled way. An electrostatic septum then catches the most unstable protons and deflects them towards the extraction line.

Unfortunately, this method has one major and unavoidable drawback: a small but significant amount of beam is lost during the extraction. The SHiP experiment requires no fewer than 4 x 10^{19} protons on target per year, which can only be achieved by reducing these beam losses by a factor of four. *"Most beam losses occur on the electrostatic septum,"* explains Brennan Goddard, TE-ABT (Accelerator Beam Transfer) group leader.

(Continued on page 2)

A WORD FROM ECKHARD ELSEN

SUCCESS IS A TWO-WAY STREET

From 23 to 26 January, CERN hosted a collaboration meeting for the Deep Underground Neutrino Experiment, DUNE, an international collaboration of some 950 people from 161 institutions in 30 countries. Located in South Dakota's Sanford mine, DUNE will study neutrinos sent through the Earth from Fermilab, some 1300 km away, but there's a very good reason why the meeting took place at CERN.

(Continued on page 2)

In this issue

Published by:
CERN-1211 Geneva 23, Switzerland tel. +41 22 767 35 86
Printed by: CERN Printshop
 Printed version: 2011-950X
Electronic Version: 2077-9518

A WORD FROM ECKHARD ELSEN

SUCCESS IS A TWO-WAY STREET

In 2015, CERN signed a Memorandum of Understanding with the US Department of Energy to develop transatlantic cooperation in particle physics. Through this agreement and subsequent addenda that are currently being concluded, the US is contributing to both accelerator and detectors in the HL-LHC project, while CERN provides a focal point for European contributions to neutrino experiments outside Europe.

Since then, there has been much progress on both sides of the Atlantic. In September last year, the Department of Energy approved the construction of experimental caverns at the Sanford mine, while here at CERN, the Neutrino Platform has been completed and handed over for the operation of experiments. An extension to the large experimental hall, EHN1, the CERN Neutrino Platform is an R&D facility dedicated initially to liquid argon time projection chamber detector technologies. It is there that we are constructing two 6 x 6 x 6 m^3 prototype building blocks that will make up the cryostats for the full 40-kilotonne DUNE detector, using an innovative and patented cooling technology. The prototype modules are scheduled for beam testing before the accelerator complex moves into the LHC's second long shutdown at the end of 2018.

Organisationally, CERN is also adapting to the new shape of global neutrino collaboration. A neutrino physics group has been set up in the Experimental Physics department to develop readout, algorithms and computing, while the Theory department has added a neutrino physics institute to its programme of activity.

All this stems from the European Strategy for Particle Physics, through which CERN provides a focal point for the high-energy frontier, while bringing European expertise to neutrino programmes elsewhere in the world. As well as DUNE, this includes the refurbishment of the ICARUS detector, which will be shipped to Fermilab in April this year, and support for the Japanese WAGASCI experiment with a magnetised iron detector, Baby-MIND. Projects are also under consideration for contributions to the Tokai to Kamioka experiment, T2K, and the ambitious, yet-to-be-approved, Hyper-K experiment, also in Japan's Kamioka mine.

The CERN Neutrino Platform is a springboard for European scientists to participate in projects elsewhere in the world, complementing the inflow of scientists from around the world to CERN. Particle physics is a truly global endeavour, embracing the free movement of people and knowledge. More broadly speaking, the free exchange of ideas among people is the lifeblood of the science and innovation that underpins our modern society. CERN is fully committed to this principle, as witnessed by our contributions to the global neutrino endeavour. In this, as in all things, success is a two-way street.

Eckhard Elsen
Director for Research and Computing

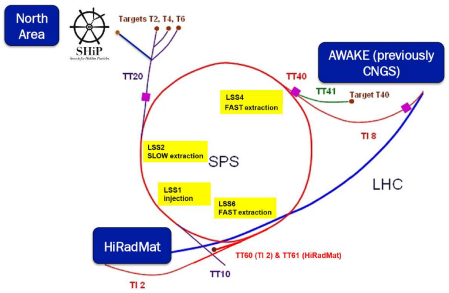
USING A CRYSTAL TO EXTRACT BEAM?

"Reducing the transverse beam density upstream of the septum is a promising technique for minimising these losses, but, up until now, we haven't been able to meet the requirements for SHiP with the tools available."

The TE/ABT group, in close collaboration with the UA9 collaboration and the BE/OP and EN-STI groups, has been investigating the possibility of using a tool already used by UA9 for the LHC collimation project: a bent silicon crystal. When placed upstream of the septum, this crystal channels the beam very effectively, resulting in significantly reduced beam losses. *"In 2016, we carried out the first tests with a 2-mm-long silicon crystal. In November, we successfully completed a slow-extracted spill, lasting many minutes, of a very-low-intensity 270-GeV beam into the TT20 transfer line,"* Goddard explains. *"The next steps will be to quantify the beam losses at higher intensities and develop crystals better suited to the extraction process."*

To this end, further studies and tests will be carried out in the SPS in 2017 and 2018. If the tests are successful, it will be excellent news not only for SHiP but also for other CERN facilities that could make use of the technology.

For more information about the SHiP experiment, see this article (*https://cds.cern.ch/journal/CERNBulletin/2015/28/News%20Articles/2030193*) *published in issue 28-29/2015 of the* CERN Bulletin.



Configuration of the future SHiP experiment. The SPS beams will be extracted slowly at long straight section 2 (LSS2) and sent towards transfer line TT20. (Image: CERN)

Anaïs Schaeffer

EYETS REPORT: PAINSTAKING WORK ON THE DETECTORS

A view of the ALICE experimental cavern. (Image: Maximilien Brice/CERN)

Many facilities across the accelerators chain are being repaired and upgraded since the second week of December 2016, as soon as the LHC operations were stopped. But this year's extended year-end technical stop (EYETS) is also an opportunity for the experiment collaborations to perform prolonged maintenance activities and preparatory works for the HL-LHC upgrade on their detectors.

ALICE

Diverse, delicate and time-consuming maintenance activities are being carried out on the ALICE detectors, especially on the electronic equipment and services, such as cooling, ventilation and electricity. Some of the electronic boards of the time-of-flight detector and the photon spectrometer will be replaced, and other minor work will be performed on the electronics and mechanics of the two calorimeters.

The gas of the time projection chamber (TPC) will be changed in an attempt to reduce the distortions that are currently affecting the TPC data and that require complex correction algorithms. At the same time, different prototypes of optical fibres necessary for the HL-LHC upgrade are being installed and will be tested during the next operation period. The commissioning of all ALICE's different detectors is foreseen for the end of March.

ATLAS

At Point 1, the ATLAS detector has been fully opened, and all sub-detectors are now accessible for maintenance. The EYETS started with repairs to the calorimeter cooling and power supplies that had some issues in 2016. Moreover, the data acquisition systems of several ATLAS sub-detector systems are being upgraded, in order to cope with the higher instantaneous luminosities and pile-up expected in 2017.

The installation of additional small muon chambers has started: as an extension of the ATLAS muon spectrometer, they will provide a rate capability an order of magnitude higher, and they can be installed in detector regions where regular muon chambers do not fit.

Finally, the installation of the second arm of the ATLAS Forward Proton (AFP) is well under way: this will complete the AFP, which saw its first arm installed in the 2015/2016 YETS. The AFP project promises a significant extension to the physics reach of ATLAS by tagging and measuring the momentum and emission angle of very forward protons.

LHCb

At LHCb, the maintenance period for work on the detectors was shrunk to a minimum this year because of the replacement of the lift and the revamping of the overhead cranes. Five weeks in total were available to perform all the regular checks, repairs and maintenance on the detectors. The large calorimeter detectors were opened for just enough time to perform the necessary work, before wrapping the LHCb detector in an envelope aiming to protect the detectors during the heavy work using the lift and cranes.

In addition, exceptional work was performed on the ring imaging Cherenkov detector and the tracker in front of the dipole. The Cherenkov detector was opened and brought down to the pit floor to exchange a few photon detectors and some front-end electronics parts. The tracker's modules were shipped to Zurich to repair a few broken bonds and reinstalled the following week.

In the next issue of the Bulletin for the CERN Community *we will report on the EYETS activities on the CMS detector.*

HOW DOES CERN ENCOURAGE WOMEN IN SCIENCE?

Sophie Baron, a scientist at CERN, speaks to children at a school in Crozet, France, to encourage them to choose a career in science. (Image: Maximilien Brice/CERN)

In physics, as in other sciences, there is often a huge gap between the number of men and women. Just 20% of CERN's community are women, and CERN wants to improve on this. To encourage and attract more women to choose science, particularly physics, as a career CERN is holding events for both Gender in Physics Day and the International Day of Women in Science.

Last week, female scientists working at CERN visited local schools, to try to inspire the next generation of women in science.

35 women who have careers as physicists, engineers and computer scientists at CERN and are fascinated by the world of science, went to speak to the pupils.

The women first introduced the students to CERN, and then explained their everyday work and how they became a part of this huge community. Most importantly, the women described what first interested them about the field.

"My motivation to participate in this programme comes from the fact I am the mother of a 7 year old girl, my sister works in education and I myself love interacting with kids," explains Marta Bajko, a researcher at CERN. "I personally love to talk about science and hope that I can capture

their attention. I had the chance as a kid to be influenced by my mother to choose a scientific career, now it is my turn."

To mark the International Day of Women and Girls in Science, some of the speakers shared their own experiences of building a career in science, and their opinions about how women are perceived in their discipline. See the series of articles here (*http://home.cern/about/updates/2017/02/naturally-im-scientist*).

Additionally, on 27 January 2017, over 100 participants gathered for the fourth Gender In Physics Day (*https://indico.cern.ch/event/560604/overview*). CERN co-organised the event with ESO and Nordforsk, as part of the GENERA project (Gender Equality Networks in the ERA). The day was a rich, interactive day with a variety of talks, personal insights, a panel discussion and workshops on promoting gender equality and creating solid networks in the field of physics.

The Directors-General of both CERN and ESO, as well as a representative for Nordforsk's Director, opened the event, which was attended by Directors and participants from other EIRO organisations and from a range of institutes and projects.

Looking back on the day, Genevieve Guinot, Head of the Diversity Programme at CERN and the driving force behind the organisation of the event, reflected: "We are very proud that the event could bring together so many different institutes and organisations that face similar challenges in different contexts. Participants gave us the feedback that the event was inspirational, with a great opportunity to network and discuss ideas. CERN was perceived as a role model for building collaboration in the field of gender equality."

Hannah Short, a British computer engineer, works in CERN's computer security team. She shared her thoughts about working in the computing field. (Image: Sophia Bennett/CERN)

Harriet Jarlett

JOIN US FOR A VOXXED DAY

A new Voxxed Days event is coming to CERN on 25 February 2017, and everyone is invited.

Voxxed Days are a series of tech events organised by local community groups and supported by the Voxxed team. Sharing the Devoxx philosophy that content comes first, these events see both internationally renowned and local speakers converge at a wide range of locations around the world.

The Devoxx DNA thrives in Switzerland after brilliant Voxxed Days events in Zurich & Ticino in recent years. Supported by local user groups, Voxxed Days CERN will offer the chance to hear from experts across a range of important topics.

If you're a developer who's curiosity is piqued by technological developments around Java, JVM, performance, productivity, web technologies or developer practices, then this is the event for you. We promise an outstanding day filled with amazing content, all at an iconic location.

Speakers include:

- Dr Venkat Subramaniam
- Martin Odersky
- Trisha Gee
- Adam Bien
- Dr Keinz Kabutz
- Simon Maple
- Josh Long
- Audrey Neveu
- Hadi Hariri
- Juergen Hoeller
- Antonio Goncalves

Tickets for the Voxxed Day CERN are on sale now, and you can register at https://tickets.voxxeddays.com/event/cern/.

There are also a limited number of free places available for CERN personnel, which can be obtained through Indico at cern.ch/voxxed.

You can also follow the event on Twitter for further information, @VoxxedCERN.

THURSDAY, 2 MARCH: PREMIERE OF HIDDEN FIGURES AND DEBATE

On Thursday, 2 March, the Pathé cinema at Balexert, in collaboration with CERN, will be hosting a premiere of the film *Hidden Figures*, followed by a debate on the position of women in science.

Hidden Figures tells the story of three African-American female scientists who played key roles in the United States' space conquest, contributing in particular to the preparations for putting astronaut John Glenn into orbit.

The story of these women, who were overshadowed by their male colleagues in an era of deeply ingrained inequality, is finally brought to the screen having been left untold for many years.

This true story reminds us that women and minority groups are still largely underrepresented in scientific research. Why is that? How has the situation changed in recent years? What steps have been taken to tackle the issue? And where are we now?

Female CERN scientists from different backgrounds will talk about their experi-

ences and give their perspective on the subject during a debate after the screening led by Tania Chytil, science reporter for RTS. Don't miss the chance to share your views with these exceptional women!

Film screening in English at 8.30 p.m., debate at 10.30 p.m.

Venue: Pathé cinema, Balexert, Avenue Louis-Casaï 27, 1211 Geneva

Standard ticket prices (including one free drink for each audience member).

The film's general release date in Switzerland is 8 March 2017. Watch the trailer (https://pathe.ch/en/cinema-geneva/movie/hidden-figures#/).

Laurianne Trimoulla

COMPUTER SECURITY: PROTECT YOUR CLICK

Today, "links" are the main threat to your operating system and, consequently, to your professional and private data. With one single "click", an attacker can compromise your device and start snooping on your life. While we still rely on you to click with care (remember – "Stop – Think –Don't click"), the CERN IT department is preparing additional measures for your protection.

Indeed, malicious links or URLs embedded in websites or e-mails, as well as malicious PDFs (attachments or downloads) can take advantage of the inherent vulnerabilities in your operating system – most likely if you are running a Microsoft Windows operating system or have an Android Smartphone, but still possible if you run MacOS, and not fully impossible with Linux or Apple iOS. Following your innocent click on a malicious link, URL or PDF, a well-crafted piece of software is executed that anchors itself in your operating system and clandestinely takes control.

With this unfortunate click, the adversary now has access to all your locally stored data. Software. Documents. Photos. Videos. Reading your e-mails. Snapshotting your activities. With your unfortunate click, the adversary might enable your webcam and your microphone. Watching and listening to you. With this momentous click, you are naked. Your life is exposed. And the chances are low that you will even detect it. . .

Last year, a dedicated clicking campaign using untargeted and irrelevant e-mails to all CERN people resulted in a 20% click-rate. 20%! This means that an attacker would now own up to 20% of CERN PCs. . . Fortunately, this was part of a campaign we ran to help you understand the risks of clicking (One click and BOOM. . .). In summer 2015, we weren't that lucky. A targeted attack, starting with two malicious e-mails, kept the Computer Security Team busy for two months and caused some non-negligible costs for the Organization. Fortunately, given the potential risk, damage was very limited.

In either case, "Stop – Think – Don't click" is your – and CERN's! – first line of defence. If you receive e-mails that are not addressed to you, not in a language you usually use, with weird or unrelated content, full of typos, with a sender whose e-mail address looks completely different, take care! This might be such a malicious e-mail (for more details on how to identify malicious emails, click here (*https://security.web.cern.ch/security/recommendations/en/malicious_email.shtml*)). But you are not alone. The IT department has recently deployed a dedicated device automatically analysing all our e-mails for such malicious content. The "Fireeye EX" device even simulates user activity trying to trigger any malicious activity in the e-mails sent to us. And since malicious PDFs are one of the main attack routes, plans are currently being made to replace our current solution with a suitable and safe alternative. This would replace a notoriously vulnerable software package with something much less likely to be targeted. Finally, the IT department is currently working on better reinforcing Windows PCs so that they are less susceptible to unfortunate clicks, while making this completely transparent for you. A draft of such guidelines can be found here (*http://edms.cern.ch/document/1593100*). But beware, for the moment this is for the experts and for very specific use cases only!

Watch where you "click" to stay secure!

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

Stefan Lueders and Computer Security Team

CONGRATULATIONS TO THE 2016 APPRENTICES

CERN's apprentices Roland Hirt (second from left) and Yann Anthonnet (fourth from left) during the 2016 UIG prize ceremony, in the presence of Pierre Maudet, Geneva state councillo (sixth from left). (Photo: UIG 2016)

At the end of 2016, CERN's five technical apprentices from the 2012-2016 year group were awarded their *certificat fédéral de capacité* (CFC). After four years at CERN, the two physics laboratory technicians, Nikkita Bersan and Roland Hirt, and the three electronics technicians, Ioana Novas, Diego Padin and Yann Anthonnet, left the Laboratory with their heads held high. We congratulate them on their achievements!

Roland Hirt and Yann Anthonnet were also awarded the 2016 *Union industrielle genevoise* (UIG) prize for their excellent academic results. The prizes were presented on 6 December at the *Office de promotion des industries et des technologies* (Switzerland) in the presence of Pierre Maudet, Geneva state councillor.

In September 2016, four new apprentices – three electronics technicians and one physics laboratory technician – joined the Laboratory. CERN's apprenticeship programme, which has been running since the 1960s, welcomes new students every year and has already enabled many young apprentices to obtain their CFC in the framework of a sandwich course.

Anaïs Schaeffer

ROBERTO SABAN HONOURED WITH THE ORDER OF MERIT OF ITALY

Roberto Saban (left) receiving his title of Commander from H.E. Maurizio Enrico Luigi Serra, ambassador and permanent representative of Italy to the United Nations and other international organisations in Geneva. (Image: Sonia Escaffre)

Anaïs Schaeffer

On 19 January 2017, Roberto Saban, now retired after having served as the head of CERN's Engineering department from 2010 to 2016, was bestowed with the title of Commander of the Italian Republic *(Commendatore Ordine al Merito della Repubblica Italiana)* at an official ceremony held at the Italian mission in Geneva.

Official communications

TAXATION IN SWITZERLAND

Memorandum concerning the 2016 internal taxation certificate and the 2016 income tax declaration forms issued by the Swiss cantonal tax administrations.

You are reminded that the Organization levies an internal tax on the financial and family benefits it pays to the members of the personnel (see Chapter V, Section 2 of the Staff Rules and Regulations) and that the members of the personnel are exempt from federal, cantonal and communal taxation on salaries and emoluments paid by CERN.

I-Annual internal taxation certificate for 2016

The annual certificate of internal taxation for 2016, issued by the **Finance and Administrative processes Department**, will be available on **17 February 2017**. **/t is intended exclusively for the tax authorities.**

1. If you are currently a member of the CERN personnel you will receive an e-mail containing a link to your annual certificate, which you can print out if necessary.
2. If you are no longer a member of the CERN personnel or are unable to access your annual certificate as indicated above, you will find information explaining how to obtain one at this link.

In case of difficulty in obtaining your annual certificate, send an e-mail explaining the problem to service-desk@cern.ch.

II-2016 income tax declaration forms issued by the Swiss cantonal tax administrations

The 2016 income tax declaration form should be completed in accordance with the general indications available at the following address: http://admin-eguide.web.cern.ch/en/procedure/income-tax-declaration-switzerland.

IF YOU HAVE ANY SPECIFIC QUESTIONS, PLEASE CONTACT YOUR TAX OFFICE DIRECTLY

This information does not concern CERN pensioners, as they are no longer members of the CERN personnel and are therefore subject to the standard national legal provisions relating to taxation.

HR Department
HR-Internal-tax@cern.ch

EXTENSION OF THE PRE-RETIREMENT PROGRAMMES

Following a recommendation by the Standing Concertation Commitee at its meeting on 31 October 2016 and approval by the Director-General, please note that:

- the Progressive Retirement Programme has been extended by one year, from 1 April 2017 until 31 March 2018;
- the Scheme of Part-Time Work as a Pre-retirement Measure has also been extended by one year, from 1 January 2017 until 31 December 2017.

Further information is available from the following sites:

- progressive retirement programme (*http://admin-eguide.web.cern.ch/en/procedure/progressive-retirement-programme-prp*)
- part-time work as a pre-retirement measure (*http://admin-eguide.web.cern.ch/en/procedure/part-time-work-pre-retirement-measure-ptp*)

HR Department

JOINT ADVISORY APPEALS BOARD

The Joint Advisory Appeals Board has examined the internal appeal, lodged by a staff member, against the administrative decision not to classify the health condition suffered by the staff member as being of a professional origin.

The person concerned has not objected to the report of the Board and the final decision of the Director-General being brought to the attention of the members of the personnel.

In application of Article R VI 1.18 of the Staff Regulations, these documents will therefore be available from 13 to 24 February 2017 at the following link (*https://indico.cern.ch/event/603338*).

HR Department

TO ALL MEMBERS OF THE PERSONNEL-SUMMER WORK FOR CHILDREN OF MEMBERS OF THE PERSONNEL

During the period from 12 June to 08 September 2017 inclusive, there will be a limited number of jobs for summer work at CERN (normally unskilled work of routine nature), which will be made available **to children of members of the personnel** (i.e. anyone holding an employment or association contract with the Organization). Candidates must be aged between 18 and 24 inclusive on the first day of the contract, and must have insurance coverage for both illness and accident. The duration of all contracts will be 4 weeks and the allowance will be CHF 1500.- for this period. Candidates should apply via HR Department's electronic recruitment system (http://ert.cern.ch): https://jobs.web.cern.ch/job/12221.

Completed application forms must be returned by 3 April 2017 at the latest. The results of the selection will be available by the end of May 2017.

For further information, please contact: Virginie.Galvin@cern.ch, Tel.: 72855 (Geraldine.Ballet@cern.ch, Tel.: 74151)

HR Department

GATE E TO THE MEYRIN SITE-REMINDER

International agreements have been concluded between CERN, Switzerland and France concerning Gate E ("Charles de Gaulle Gate") aimed at reducing congestion at the Prévessin–RN84 and Meyrin-Route customs posts.

On the basis of these agreements, the Rules for the use of Gate E (*http://hoststates.web.cern.ch/hoststates/documents/ReglementPorteE_Rev2_091123.pdf*) (document CERN/DSU-RH/12222/Rev.2 available on the Relations with Host States website) include the following provisions:

1. Gate E is **open** from Monday to Friday, except on official CERN holidays, from 7.00 a.m. to 9.30 a.m. for access to the site, and from 4.30 p.m. to 7.00 p.m. for departure from the site.
2. Only the following persons are **authorised** to use Gate E:
   - members of the CERN personnel (who may be accompanied by any of their children attending the CERN nursery school),
   - members of contractors' personnel working on the CERN site.

These persons must be in possession of the following **documents**:

- their CERN access card of the Blue “C” type or Red “E” type proving that they are authorised to use Gate E,
- their national identity card, if accepted by French and Swiss regulations, or their passport (with visa if required by the French and/or Swiss regulations),
- their French residence permit if they live on French territory and are not Swiss nationals or nationals of a Member State of the European Union (e.g. a special French AT, FI or CD card issued by the French Ministry of Foreign Affairs or a *carte de séjour préfectorale*).

1. * All persons using Gate E must present their CERN access card to the Guard on duty **without being prompted**, and wait until he specifically authorises them to pass.
2. * **Only personal effects** that are not subject to a customs declaration may be transported (cf. websites of the Swiss and French customs (*http://www.admin.ch/ch/f/rs/631_01/app1.html#ahref1*)).
3. * Persons are authorised to use Gate E exclusively **for the purposes of travelling to work on the Meyrin Site from French territory and vice versa** (it is strictly forbidden to use Gate E in order to gain access to the territories of the Host States outside the boundaries of the CERN site).

Relations with the Host States Service
http://www.cern.ch/relations/
relations.secretariat@cern.ch
Tel.: 72848 / 75152

COMPOSITION OF THE JOINT ADVISORY APPEALS BOARD (JAAB/CPCR)-2017 EXERCISE

Appointed by the Director-General
Member Nicole POLIVKA / HSE
1st deputy Raymond VENESS / BE
2nd deputy Ramon FOLCH / EN

Appointed by the Staff Association
Member Rosario PRINCIPE / TE
1st deputy Nicolas SALOMON / PF
2nd deputy Almudena SOLERO / FAP

Ms Polivka and Mr Principe have drawn up the following list of staff members from among whom the Chairperson of the Board may be chosen when required:

- Sandrine BAUDAT / FAP
- Joel CLOSIER / EP
- François BRIARD / IR
- Alexandra HAHNEL-BORGEAUD / IPT
- François BUTIN / EN
- Arash KHODABANDEH / IT
- Etienne CARLIER / TE
- Isabelle Laugier / BE
- Philippe CHARPENTIER / EP
- Pedro MARTEL / EN

Mediators [see Administrative Circular N °6 (Rev. 1) entitled "Review procedure"] will also be selected from this list of ten staff members.

HR Department (HR/DHO)

COMPOSITION OF THE JOINT ADVISORY DISCIPLINARY BOARD (JADB/CPCD)-2017 EXERCISE

Appointed by the Director-General
Member John PYM / DG
1st deputy Gianluigi ARDUINI / BE
2nd deputy Dante GREGORIO / FP

Appointed by the Staff Association
Member Sigrid KNOOPS / TE
1st deputy Nick ZIOGAS / IPT
2nd deputy Peter HRISTOV / EP

Mr Pym and Ms Knoops have drawn up the following list of staff members from among whom the Chairperson of the Board may be chosen when required:

- Ronny BILLEN / BE
- Ignacio REGUERO / IT
- Sylvain CHAPELAND / EP
- Laurent TAVIAN / ATS
- Doris FORKEL-WIRTH / HSE
- Gabriele THIEDE / FAP
- Alberto PACE / IT
- Pierre VANDE VYVRE / PH
- Stephan PETIT / EN
- Andreas WAGNER / IT

HR Department (HR/DHO)

DRIVING IN FRANCE-NEW AIR QUALITY CERTIFICATE ("CRIT'AIR" STICKER)

The Ministry of Foreign Affairs and International Development has informed CERN that:

- as of 16 January 2017, only vehicles displaying an air quality certificate (CQA or "CRIT'Air" sticker) identifying them as being electric or in environmental classes 1 to 5 may be driven in Paris;
- vehicles certified as being in class 5 should no longer be permitted in the city of Paris from July 2017;
- a CQA will also be required when traffic restrictions are put in place at times of particularly high air pollution, replacing the system of prohibiting cars with odd or even number plates on alternate days.

The CRIT'Air sticker, which is issued according to the vehicle's environmental classification (cf. http://www.developpement-durable.gouv.fr/certificats-qualite-lair-critair#e1), must be ordered online at www.certificat-air.gouv.fr/demande. It will then be sent to the address shown on the vehicle's registration certificate (*carte grise*) and must be affixed to the vehicle in such a way as to be fully visible from the outside.

Air quality certification also applies to vehicles registered in a special series in France (i.e. those with "green plates"). However, it is not currently possible to apply for a sticker for these vehicles using the online form. The Ministry of Foreign Affairs and International Development will provide more details soon.

The *sous-préfecture* of Gex has confirmed that the measures mentioned above also apply to vehicles registered abroad, including those registered in the European Union, Switzerland and Norway (please refer to the relevant procedure at the web address given above).

Relations with the Host States service
www.cern.ch/relations
relations.secretariat@cern.ch
Tel.: 72848 / 75152

Announcements

PERTURBATION OF THE TRAFFIC ON ROUTE RUTHERFORD

Due to works, half of Route Rutherford, between building 361 and building 271 (see map), will be closed to traffic **from Friday 10 February 7 a.m. to Friday 7 April 5.30 p.m.** Traffic lights will manage the alternating traffic.

Thank you for your understanding.

SMB Department

18 FEBRUARY: EMERGENCY STOP TESTS | PRÉVESSIN SITE - AREA 10

The emergency stop tests of the area 10 on the Prévessin site are planned on Saturday 18 February 2017 from 7:00 a.m. to 8:00 p.m.

Frequent power cuts will occur on the Prévessin site-Area 10 (buildings 867; 864-865 blocks 1 & 2; 866-892 blocks 3 & 4; 904; 927; 926; 933; 880; 881; 939). The EN-EL group recommends that you turn off all your critical equipment and computer equipment.

For any further information please refer to the "note de coupure (*https://edms.cern.ch/ui/file/1753727/1/ENNC_EL_2017_039_AUG_PREVESSIN_ZONE_10.pdf*) ".

Thank you for your understanding.

EN-EL group

THE CERN ACCELERATOR SCHOOL HAS MOVED TO BUILDING 6-02-13

The CERN Accelerator School has moved offices. We are now in **Building 6-02-13**. We also now have a full set of the CERN Accelerator School proceedings in B6- 02-17, so please feel free to come and consult them.

RESULTS OF THE SURVEY ON CHILDCARE NEEDS AT CERN

As announced in November, the CERN Nursery Services Working Group has carried out a survey of 1537 parents of children aged under ten, with the aim of collecting their comments and understanding their needs and expectations for nursery services at CERN. Almost a third of the parents contacted responded to the survey and the results have just been published in the form of a series of infographics on the Diversity Office website and in a report that you can find here (*https://cds.cern.ch/record/2243584*). The working group will use the analysis of these results to define appropriate recommendations in response to the needs expressed.

Ombud's corner

DO WE NOT OWE IT TO OUR DAUGHTERS?

The "Gender in Physics" conference hosted by CERN last week showed that our Organization has been at the forefront of the drive towards gender equality in science over the last 20 years, with the launch of its Equal Opportunities Programme in 1996 leading the way. With women representing around 18% of our scientific and engineering staff today, we can proudly say that we have come a long way since 1995, when women represented around 11% of computer scientists, 3% of research and applied physicists and 0.5% of engineers.

As our Director-General said in her presentation, it is all about "encouraging, employing and enabling" women to pursue the fields of science and engineering, and the increase in the number of women at CERN certainly indicates that these efforts have born fruit. But gender equality means more than just gender parity, and whilst continuing our efforts to *encourage* high-school students to pursue science and to *employ* our colleagues through equitable recruitment practices, we might perhaps also benefit from asking ourselves if we are doing everything possible to promote a mindset that truly *enables* all our colleagues to contribute as equals.

In the six years since the creation of the function, annual reports from the Ombud have shown that, whilst fewer women than men visit the office in absolute numbers, three times more women visit when considering the data relative to the sizes of the populations concerned. Of course, this could simply be a question of personal preference – "after all," as one colleague remarked, "women talk more easily about their problems than men." But is that an objective explanation or does it reflect an unconscious bias that is generally prevalent both at CERN and in society? The answer may well be a combination of both factors, but an informal comparison with other international organisations in the area confirms that the working environment and culture are an important contributing factor to this data, given that the lower the proportion of women in an organisation, the higher the proportion of female visitors to the organisation's ombud's office.

Organisational culture is defined as the values and behaviours that "contribute to the unique social and psychological environment of an organisation." It refers to the collective pattern of beliefs and assumptions underlying the ways in which people interact with each other. Often this manifests itself in small acts of language or behaviour that in themselves appear reasonable, but combine to form a context with which only the majority can identify.

It is said that privilege is invisible to the privileged, and not only is it difficult for the majority to recognise the insidious barriers of organisational culture that minority groups face, it is sometimes equally difficult for those within the minority who have succeeded in overcoming them to grasp. Yet the issues reported daily in the Ombud's Office, such as career development, lack of support, preconceived ideas, discouragement due to everyday sexism and a very visible lack of role models, would suggest that ours is not yet a level playing field for all concerned.

Indeed, a woman who walks into a meeting room surrounded by photographs of only male scientists, picks up a document that says that "the masculine gender shall be understood as referring to both genders", or works in an environment where all her superiors are male may well ask herself what would happen if the situation were reversed. Isn't it time that we realised that all these little things add up to a mindset that needs to change? Do we not owe it to our daughters?

Sudeshna Datta-Cockerill