A WORD FROM LAURE ESTEVENY

THE HIGH-ENERGY NETWORK: ONE YEAR OLD AND GOING STRONG

One year ago, we launched the CERN Alumni network, and what a year it has been. When the network went live on 8 June 2017, we knew there was a strong appetite for it, but what has happened since then has exceeded our wildest dreams.

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COMPLETE MAKEOVER OF THE EAST AREA

Major renovation work will reduce energy consumption and improve the reliability and safety of the experiment hall

Renovation of the East Experiment Area of the Proton Synchrotron (PS) (Image: CERN)

The East Experiment Area of the Proton Synchrotron (PS) is to be given a complete makeover, ultimately producing energy savings of up to 90% on electricity and gas consumption. The renovation project, approved by the CERN Council in mid-2016, began with the civil engineering work this year.

With a volume of 100 000 m³, Building 157, also known as the PS East Experiment Area, is home to the CLOUD, CHARM and IRRAD experiments and is among the oldest and largest structures at CERN. The East Area houses four beam lines from the PS. Renovation work is urgently needed, due to the ageing of the installations, which date back to the sixties, and several technical failures. The upgrade will enable experiments and beam tests to be performed with vastly improved availability, reliability and safety.

The work will be performed in two major phases. The first, which has already begun, is the complete restoration of the building's outer shell. The objectives are twofold, namely to provide a safe work environment and to improve energy efficiency.

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A WORD FROM LAURE ESTEVENY
THE HIGH-ENERGY NETWORK: ONE YEAR OLD AND GOING STRONG

At 3100 members strong and growing, the CERN Alumni network is every bit as inclusive as we’d hoped it would be. It’s open to anyone who holds or has held a contract of employment or association with CERN, with the result that some 57.5% of members have left the Laboratory for new adventures in over 80 countries around the world, while the remainder are currently working at CERN, most of them nearing the end of their contract.

Among the benefits that members enjoy are networking, career development, intellectual entertainment and career development. Last week, for example, we held a very well attended event for those considering making the move from academia to finance. Increasingly, alumni are also taking things into their own hands, establishing local CERN alumni groups to add a social element to the mix. In Houston, the mayor even went so far as to declare 26 April 2018 to be the CERN Texas Alumni day.

The highlight of the network’s first year was the “First Collisions” gathering of some 360 alumni at CERN on 2 and 3 February. Participants were treated to a feast of presentations and discussions from fellow alumni. They had the opportunity to visit the Laboratory, and skiing was also on the menu. It was here that regional groups began to take shape and that plans were hatched for CERN alumni to participate in prestigious events such as WOMAD in the UK.

It’s been a great first year, but we’re not resting on our laurels. We want the network to grow and to blossom in ways that we can’t yet imagine. Help us spread the word, and if you’re already a member, join the conversation by sharing your stories with us at alumni.relations@cern.ch. Let’s keep the high-energy network buzzing!

Laure Esteveny
Project leader for the CERN Alumni programme

COMPLETE MAKEOVER OF THE EAST AREA

The civil engineering work therefore consists of removing asbestos-based elements and installing sandwich panels to reinforce the building’s thermal insulation. This will considerably reduce heating costs, as the building’s thermal consumption should decrease from 3.5 GWh/year to just 1.2 GWh/year after the renovation.

“The main challenge is to carry out the work while keeping the installation operational this year for its users”, explains Sébastien Evrard, project leader for the PS East Experiment Area renovation.

The second phase, planned for the long shutdown, will involve changing the magnets and their power supply. Power is currently supplied to the magnets on a continuous basis, with only 7% of it actually being used during beam time. Power supply to the new magnets will be on a cyclical basis, with an energy recovery stage between each cycle. The energy returned by the magnets during their de-magnetisation will be stored in capacitor banks connected to the new power converters and immediately reused during the next cycle to re-magnetise the magnets. Electricity consumption should therefore fall from 11 GWh/year to around 0.6 GWh/year.

The improvement of the building’s energy efficiency has won the SMB department and the project a significant grant from the Office cantonal de l’énergie de Genève (OCEN). This grant is a first for CERN and the department hopes that it will be an example for future renovation projects.

Additional improvements will be undertaken to improve user comfort. When the renovation is complete at the end of Long Shutdown 2 in 2021, the hall will have two new test beam areas in addition to the three existing installations.

Cristina Agrigoroae
LHC REPORT: STANDING STRONG THROUGH THE STORMS

As I write this report, the integrated luminosity counter for ATLAS and CMS is at 23.1 fb⁻¹, exceeding our goal of around 18 fb⁻¹.

May 2018 was one of Switzerland’s warmest Mays since meteorological measurements started in 1864. However, it is not so much the temperature but the associated thunderstorms that can have an impact on our accelerator complex and, in particular, its subsystems. Météo France declared May 2018 the month with the most thunderstorms since records began in 2000.

Over the last few weeks, nearly every evening has been marked by thunderstorms of varying degrees of violence. This has caused regular temporary drops in voltage on the national power distribution networks, which have had an impact on our equipment, resulting in some systems switching off, while others suffered from digital communication errors, leading to malfunctions. So far this year, the CERN Technical Infrastructure operators have recorded twelve serious electrical disruptions, eight of which have occurred since the end of April.

In recent years, work has been undertaken to make our systems less sensitive to these electrical power glitches. As a result, their impact has been mitigated and the subsequent recovery has become more efficient. Despite the large number of thunderstorms and thanks to the efficient recovery work, the LHC and its injector complex are performing well and the beam availability ratios are not very different from previous years.

On Tuesday, 12 June, luminosity production was interrupted for a block of machine development sessions, during which no fewer than fifteen different aspects were addressed by experts. This will be followed by a four-day technical stop to perform the necessary maintenance, repairs and minor upgrades to the machine, as well as the experiments. Before resuming luminosity production on 4 July, the experiments will perform special physics runs, for which low luminosity is generally needed. Until then, the aim is to keep the luminosity production high – as I write this report, the integrated luminosity counter for ATLAS and CMS is at 23.1 fb⁻¹, exceeding our goal of around 18 fb⁻¹, while for LHCb, we are at 0.8 fb⁻¹ with a goal of 0.6 fb⁻¹.

LHC time distribution over the period from 17 April to 7 June 2018. The most important figure in this pie chart is the stable beam statistic of 49.7%, which is very close to our goal of 50%. This can be achieved only when machine availability is high – for a machine as complex as the LHC, 80.7% is very good.

Rende Steerenberg

ECSITEMENT REIGNS AT CERN’S EXHIBITIONS

Museum directors and science outreach experts visited CERN on the occasion of the annual ECSITE meeting

Several hundred museum directors and science outreach experts visited CERN in the framework of the European Network of Science Centres and Museums (ECSITE). More than a thousand science outreach experts from over 45 countries converged in Geneva, from 5 to 9 June, for the 29th annual ECSITE conference, organised by the Natural History Museum of Geneva in partnership with CERN, the University of Geneva and Campus Biotech. On Wednesday, 200 of the conference speakers came to the Globe of Science and Innovation. The doors of Ideasquare and Microcosm were thrown wide open to allow participants to exchange ideas with CERN’s scientists and science outreach experts. And throughout the conference week, participants came to CERN on guided tours organised by the visits service.

The team in charge of CERN’s exhibitions regularly collaborates with science museums all over the world to enrich the Laboratory’s offering and to meet new audiences. As a result, close to one million people visited the exhibition at the Science Museum in London, which was produced in collaboration with CERN.

For more information on how CERN supports museums, see this page (https://visit.cern.fr/ofres-musees).

Corinne Pralavorio
What do some webcams, cameras, video-conferencing cameras, control devices and Internet-of-Things devices connected to CERN networks have in common?

What is the risk? Think of webcams used at home or in conference rooms, for CCTV monitoring or access control: with the default password, anyone can see what they display. Privacy is gone. Similarly, people with malicious intent can enable the embedded microphone and listen to your discussions. Confidential meetings go public. Default passwords for routers will expose all your network traffic to a third-party attacker, i.e. the webpages you are accessing, including any content if you do not use encrypted communication channels such as SSH, RDP, VPN or HTTPS. Worse, your home router is able to connect to all your devices at home (this is its core purpose) and the attacker can therefore probe them all for vulnerabilities in order to widen the attack. Or think of devices controlling some industrial processes, drilling machines, solar panels, coffee machines, etc. Being able to freely configure their settings might render your machine or product useless. Who would accept a plain black coffee if they’d ordered ristretto?

So, next time you install a brand new device on your network at home or here at CERN, remember to change its default password. The same holds for any other device you inherit and start using: make sure that the configured password is known by you and only you. Select a good, strong password. Make it complex by using letters, symbols and numbers. Do not use it anywhere else. Keep it to yourself. And if your creativity fails, here are some hints:

- Choose a line or two from a song or poem and use the first letter of each word. For example, “In Xanadu did Kubla Khan a stately pleasure dome decree!” becomes “IXdKKasppd!”
- Use a long passphrase, such as the sentence “InXanaduDidKublaKahnASTately PleasureDomeDecree!” itself, or mathematical formulae, such as “\sin^2(x)+\cos^2(x)=1”
- Alternate between one consonant and one or two vowels with mixed upper/lower case. This produces nonsense words that are usually pronounceable, and thus easily remembered. For example: “Weze-Xupe” or “DediNida3”
- Choose two short words (or a long one that you split) and join them together with one or more punctuation marks between them. For example: “dogs+F18” or “comP!!UTer”

Pascal Oser & Sharad Agarwal for the Computer Security Team

Do you want to learn more about computer security incidents and issues at CERN? Register to receive our monthly report. For further information, questions or help, check out our website or contact us at Computer.Security@cern.ch.
IMPLEMENTATION OF THE CERN CLOUD POLICY

There is a global trend towards outsourcing computing services to third party providers via the World Wide Web. Since such “Cloud Services” can be more cost-effective than hosting those on-premises, it can be in CERN’s interest to use them. However, certain aspects of the Cloud Services’ “Acceptable Use Policy” related to privacy, data protection & ownership, security need to be carefully assessed and data locality must comply with CERN’s privileges and immunities.

The Cloud Licence Office (CLO) has been established to provide guidance on the purchase and use of cloud services by members of CERN’s personnel, evaluate whether adverse conditions exist and whether the overall risks are acceptable to the Organization, and to authorize any site-wide purchase & usage of Cloud Services.

The CLO works in close contact and in cooperation with the Procurement and Industrial Services group (IPT-PI), the IT Consulting Team and the Software Licence Office (SLO). If needed it liaises with the Computer Security Officer (CSO), the Office of Data Privacy Protection (ODPP) and with the Legal Service.

The CLO operates on the basis of a Policy for Cloud Usage. As per this policy, each of the two categories below is linked with specific obligations:

- **Entreprise Clouds**: Require a contract with CERN following previous consultation and approval by the CLO. For this case, please collect the information and documents described in Questions to Enterprise Cloud providers before contacting the CLO.

- **Public Clouds**: They can be used by individuals without conclusion of a contract with the service provider if the following criteria are met:
  - no CERN legally protected data involved,
  - confidential data restrictions strictly adhered to with appropriate access controls, and possibility to transfer all CERN data onsite or to another account when required. The usage of public clouds is allowed provided the service is registered in the list of certified public clouds maintained by the CLO. To be added to such list a public cloud must have satisfactorily completed the CERN Self-assessment of Public Clouds.

Cloud Licence Officer: Ignacio Reguero
Deputy: Vincent Nicolas Bippus

Contact: The Cloud Licence Office is reachable via https://cern.service-now.com/service-portal/function.do?name=it-cloud-licence or “cloud-licence-officer@cern.ch”.

Cloud Licence Office Web Site: https://cloud-licence-office.web.cern.ch/

CONDITIONS AND MEANS OF ACCESS TO THE FRENCH LABOUR MARKET FOR SPOUSES AND CHILDREN OF MEMBERS OF THE PERSONNEL

The Ministry for Europe and Foreign Affairs has informed CERN of the conditions and means of access to the French labour market applicable to spouses and children of members of the personnel. This information has been published on the Relations with the Host States service’s website [https://international-relations.web.cern.ch/stakeholder-relations/hoststates/VisasAndResidence/Conditions-and-means-access-French-labour-market](https://international-relations.web.cern.ch/stakeholder-relations/hoststates/VisasAndResidence/Conditions-and-means-access-French-labour-market).

In principle, spouses and children under 21 years old (and dependent disabled children older than 21 years old) who are not nationals of Switzerland or a country in the European Union or European Economic Area and who hold a special residence permit issued by the Ministry for Europe and Foreign Affairs (“special French card”), can be issued, at CERN’s request, with a work permit allowing them to work:

- in a salaried role,
- on a freelance/self-employed basis,
- in a regulated profession.

It should be noted that the special residence permit does not entitle holders to register with the Register of Commerce and Companies and that, as a result, they are not entitled to undertake any commercial activity directly.

Moreover, in the case of part-time salaried employment, the salary must be at least equivalent to the minimum monthly remuneration in France (the “SMIC”).

You are reminded that nationals of Switzerland or a country in the European Union or European Economic Area have
PROCEDURE FOR OBTAINING VISAS FOR SWITZERLAND AND FRANCE - SIGNATURE RIGHTS

In accordance with the Status Agreements with CERN, Switzerland and France facilitate the entry of members of the Organization’s personnel on to their territories. Where relevant, detailed procedures for obtaining visas apply.

Within the framework of those procedures, only the following individuals are authorised to initiate the Note verbale procedure as well as to sign the Official Invitation Letters and the Conventions d’accueil:

2. Maria BARROSO LOPEZ (IT – DI)
3. Ioana BERTHEREAU (HR – TA)
4. Catherine BRANDT (DG – DI)
5. Michelle CONNOR (TH – GS)
6. Rachelle DECREUSE-MICHAUD (EN – ARP)
8. Patrick FASSNACHT (EP – ADO)
11. Jeanette KOTZIAN (BE – HDO)
12. Cécile NOELS (ATS – DO)
14. Maria QUINTAS (HR – TA)
15. Kate RICHARDSON (EP – AGS)
16. Jeanne ROSTANT (TH – GS)
17. Christoph SCHAEFER (IR – REL)
18. Emmanuel TSESMELES (IR – REL)

The French and Swiss Authorities will reject any request signed by a person who is not on this list.

We would like to remind you that in accordance with the memorandum of 7 December 2000 issued by the Director of the Administration, (ref. DG/DA/00-119), “the Organization shall not request any legitimisation document (or residence permit) or visa from the Host States for persons registered as EXTERNAL” (people who do not hold a contract of employment, association or apprenticeship with CERN).

We would also like to remind you that those coming to CERN should find out in good time about the conditions of entry to Switzerland and France applying to them and ensure that they obtain the requisite visas, where applicable, in the country in which they are habitually resident.

Useful information can be obtained from the Swiss and French diplomatic representations abroad, as well as from the following Web pages:

- https://www.sem.admin.ch/sem/en/home/themen/einreise/merkblatt_einreise.html (Swiss State Secretariat for Migration);

The Authorities of the Host States have informed the Organization on a number of occasions that they insist upon scrupulous compliance with visa legislation.

EDUCATION FEES - PERIOD OF ADMISSIBILITY

Members of the personnel are reminded that, pursuant to Article R V 1.37 of the Staff Regulations, they have until 31 August 2018 to submit claims for the reimbursement of education fees relating to the 2016/2017 school year.

These claims should be made via group or department secretariats.

As of the 2017/2018 school year, claims should be made using a new EDH form, which should be completed directly by the beneficiary: https://edh.cern.ch/Document/EducationFees

Detailed information concerning education fees is available in the Admin e-guide: https://admineguide.web.cern.ch/procedure/paiement-des-frais-deducation-sommaire

The Human Resources department also remains at your disposal to answer any questions: schoolfees.service@cern.ch.
FAMILY BENEFITS - OBLIGATION TO PROVIDE INFORMATION

Members of the personnel are reminded that, pursuant to Articles R V 1.38 and R V 1.39 of the Staff Regulations, they are obliged to declare the following in writing to the Organization within 30 calendar days:

- any change in family situation (marriage, civil partnership, birth or adoption of a child, divorce, death of a spouse or dependent child);
- any change in the situation of a dependent child (end of studies, start of paid employment, military service, marriage or civil partnership, change of residence or dependence status of a spouse’s child);
- the amount of any financial benefit of a similar nature to those stipulated in the Staff Regulations (e.g. family allowance, child allowance, infant allowance, non-resident allowance or international indemnity) to which the member of the personnel or a family member may be entitled from a source other than CERN.

The procedures to be followed are available in the Admin e-guide: https://admin-eguide.web.cern.ch/en/procedure/change-family-situation.

The Human Resources department also remains at your disposal to answer any questions: HR-Family.Allowance@cern.ch.

Members of the personnel are also reminded that any false declaration or failure to make a declaration with a view to deceiving others or achieving a gain resulting in a financial loss or loss of reputation for the Organization constitutes fraud and may lead to disciplinary action in accordance with Article S VI 2.01 of the Staff Rules.

HR department

Announcements

STUDENT SHUTTLE CERN - SUMMER 2018

Over Summer 2018 (18 June - 31 August 2018), the SMB department will organise a shuttle to transport students from/to St Genis to/from both CERN sites, Meyrin & Prevessin. You will find the complete timetable and further details about this shuttle on the SMB website (http://smb-dep.web.cern.ch/en/ShuttleService).

We also take this opportunity to reduce the number of stops on the first tour of shuttle circuit 2 in the morning, in order to better respect timings due to the recurrent traffic jam. Details on the adjustment of circuit 2 are available here (https://smb-dep.web.cern.ch/en/ShuttleService/Circuit2).

Thanks to all for your understanding.

CERN Mobility Center, SMB Department

VISIT ART BASEL TO DISCOVER A CERN-INSPIRED ART INSTALLATION

HALO, a large-scale art installation conceived at CERN and inspired by ATLAS data will be exhibited during Art Basel, the international art fair staged in Basel during 13-17 June. HALO is the 4th Audemars Piguet Art Commission.

Celebrating the ties between art, science and technology, HALO is an immersive art installation inspired by raw data generated by ATLAS in 2015. It has been conceived and executed by CERN’s former artists-in-residence, the “Semiconductor” duo of Ruth Jarman and Joe Gerhardt, in collaboration with Mónica Bello, curator and head of Arts at CERN. Using kaleidoscopic images of slowed-down particle collisions, which trigger piano wires to create sound, the experience takes you on a magical voyage into the subatomic world of particles. The artwork is the annual commission of the Swiss watchmaking company Audemar Piguet and a collaboration with CERN. The exhibition is free entry and suitable for all audiences.

Venue: Messenplatz, Hall 4U, Basel
Public opening hours: 13-17 June, 10:00 am - 9:00 pm

Cristina Agrigoroae
CERN RESTAURANTS: OPENING HOURS DURING SUMMER 2018

This summer the three CERN restaurants will remain open for their usual hours. The 'Coin Brasserie' in Restaurant 2 will be closed from Monday 30 July to Friday 24 August 2018. The cafeterias will be open as follows, in building:

- 6: normal hours
- 13: normal hours
- 30: normal hours
- 40: open from 8.30 am to 4:30 pm from 30 July to 24 August
- 54: closed from 30 July to 24 August
- 864: open from 9.30 to 10.30 am and from 3.00 to 4.00 pm from 2 July to 20 July, and only open from 3.00 to 4.00 pm from 23 July to 24 August
- 865: open from 9.45 to 10.45 am every day
- 774: normal hours

In addition to that, Restaurants 2 and 3 and all cafeterias will be closed on Thursday 6 September, 'Jeûne genevois', and Friday 7 September. Restaurant 1 will apply its weekend opening hours on 6 September, from 7.00 am to 10.00 pm, and normal opening hours will resume on Friday 7 September 2018.

PRÉVESSIN: CHEMIN DU MOULIN DES PONTS OPEN TO VEHICLES

Due to the work taking place at the Prévessin crossroads and the resulting traffic disruption, the SMB department has decided to allow vehicle access to the Prévessin site via the Chemin du Moulin des Ponts entrance (transit area) from 4 June to 13 July 2018 on weekdays at the following times:

- 7 a.m. to 9 a.m.
- 11.30 a.m. to 1.30 p.m.
- 4.30 p.m. to 6.30 p.m.

Pedestrians and cyclists must continue to use the turnstile at this entrance.

SUSANNE MURATORI (1933-2018)

Sad news for members of the former Track Chamber (TC), Experimental Facilities (EF) and Accelerator Technology (AT) divisions.

Susanne Muratori joined the adventure of the formative years of CERN in 1955, following her studies at the École d'Interprètes. She was first recruited by the Purchasing Office and later moved to the PS division. She joined the then newly created Track Chamber division (previously a group within the PS division) in 1961. She soon became the heart and soul of secretarial administration for the three above-mentioned successive divisions. Before retirement, she joined the CERN Directorate as an administrative personal assistant.

Colleagues at CERN, as well as numerous visiting scientists, will remember Susanne for her great professionalism, her constant concern for other people and the warm and humorous way in which she tackled and solved problems, private or work-related.

Susanne will be fondly remembered as an intelligent, profoundly human and exceptional “Cernoise”.

Her passion for classical music led to the foundation of the CERN Music Club in collaboration with the former CERN Director-General Victor Weisskopf.

Our sincere condolences go to her husband Giovanni and her son Bruno and family.
THE DOOR TO THE TRUTH

An ancient book in the CERN library captivated two scientists. It told of a place at the end of the world, where the sky touched the earth and they would find the answer to all their questions. They decided to take a sabbatical to go in search of it, swearing that they would not return until they had found it.

The two comrades travelled to the four corners of the earth and sailed its seven seas, overcoming countless obstacles, enduring desperate hardship and resisting innumerable temptations. More than once, they were a hair's breadth from giving up and abandoning their quest... but how would they explain that to their friends and colleagues?

The book had said that they would find a door that would open at their knock, bringing them face to face with the truth.

Finally, their long journey came to an end when the two scientists happened upon the door. Without wasting a second, their hearts thumping, they knocked. Ever so slowly, the door swung open. Trembling with emotion, they crossed the threshold and found themselves... back in their office at CERN!

The moral of the story: don't overthink your problems. The answer is often much closer to home than you might imagine... Let's help one another find it.

My role as Ombud isn't to come up with answers or solutions for those who come to see me. Quite the opposite: by listening to you and asking you questions, I try to help you find the answer yourself. And, believe me, the answer's often inside you. It's up to you to find it!

Pierre Gildemyn

If you'd like to comment on any of my articles or suggest a topic that I could write about, please don't hesitate to e-mail me at Ombuds@cern.ch.