## LS2 REPORT: REVIEW OF A RATHER UNUSUAL YEAR

COVID-19 has undoubtedly had an impact on the activities and schedule of LS2. Nevertheless, the accelerators are now starting up again



The new PS septum magnet during installation in the injection line in June 2020. (Image: CERN)

2020 is coming to an end... and what a year it has been. It remains to be seen what 2021 has in store for us... but let's forget about coronavirus for a moment, and take a look at what's going on at CERN's accelerator complex. In spite of the obstacles, and thanks to the hard work of all the teams involved, the upgrade work being carried out during Long Shutdown 2 (LS2) has continued this year, and several important milestones have been reached.

On 31 January, a new kicker magnet was installed in the Proton Synchrotron (PS). After LS2, the PS Booster will supply it with particles at an energy of 2 GeV, com-

pared with 1.4 GeV previously, and the PS needed this new magnet, as well as a new septum magnet (installed at the end of June), to be able to cope with this increase in the injection energy. In June, two beam dumps were also installed in the accelerator.

On 3 July, the LS2 accelerator coordination team handed over the PS Booster to the Operations group. Linac 4 and the PS Booster thus became the first two accelerators to be recommissioned, 18 months after the start of LS2.

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#### LS2 REPORT: REVIEW OF A RATHER UNUSUAL YEAR

At the LHC, as part of the DISMAC (Diode Insulation and Superconducting MAgnets Consolidation) project, reinforcement of the electrical insulation of the accelerator's 1232 diodes has been completed. The final interconnection was closed on 3 August.

Also in August, low-energy negative hydrogen ion (H) beams passed through the first section of Linac 4 for the first time since its connection to the Booster. On 20 August, the first beams at the nominal energy of 160 MeV passed through the whole machine to a special beam dump at the other end and, the following month, beams reached the beam dump just upstream of the Booster.

In September, the new external beam dumps of the LHC were successfully installed in their respective caverns.

At ELENA, the deceleration ring downstream of the AD, a beam of H ions reached the GBAR and ALPHA experiments in October, marking the completion of the installation of new transfer lines from the new decelerator. Also in October, the "new" HIE-ISOLDE (High Energy and Intensity Isotope mass Separator On-Line) received its first beam since it was shut down in November 2018: a stable neon beam from an independent source, injected into the machine to allow adjustments to be carried out.

The Proton Synchrotron and the Super Proton Synchrotron were handed back to the Operations group on 23 October and 4 December respectively.

On 15 November, the cool-down of sector 4-5, the first sector to be cooled, was successfully completed. The sector was cooled with superfluid helium to a temperature of 1.9 K (-271.3 °C), its nominal operating temperature. The whole LHC will be operating under its nominal cryogenic conditions by spring 2021.

New equipment developed for the High-Luminosity LHC (HL-LHC) has also been installed in the collider over the course of the year (see here (https://home.cern/ne ws/news/accelerators/hl-lhc-equipment -installed-both-sides-alice-experiment) and here (https://home.cern/news/news/accelerators/ls2-report-high-lumin osity-lhc-ready-injection)). At the LHC's large experiments, which have been particularly impacted by the pandemic, work is continuing, detector by detector, optical fibre by optical fibre.

#### An update on the schedule

The new schedule for LS2, approved by the CERN Management on 23 October, anticipates that the first low intensity test beams will circulate in the LHC at the end of September 2021. Run 3 of the LHC will start in early 2022. As for the LHC's injectors, they are gradually being started up this month. The many experiments at ISOLDE and the PS-SPS complex (except for those using ion beams) will therefore be able to start taking data as of summer 2021. No changes have been made to the schedule beyond 2022. The third long shutdown (LS3) will begin at the start of 2025 and end in mid-2027.

\*\*\* We would like to take the opportunity of this final "LS2 Report" of the year to wish you a very happy festive season. Take care and see you next year! \*\*\*



The new transfer line connecting the ELENA ring (behind the wall on the right) to the GBAR experiment (left). (Image: CERN)

Anaïs Schaeffer



## CERN INTRODUCES PROXIMITY DETECTING DEVICE FOR PERSONNEL

#### New proximity detecting device will help break chains of COVID-19 transmission



CERN's contact tracing device, the Proximeter, is being introduced to protect the health of everyone coming onsite. It has been designed to double up as an access card holder. (Image: CERN)

Rapid and comprehensive contact tracing has proven to be an effective way of breaking chains of transmission of COVID-19, and continues to play a central role as the pandemic evolves. At CERN, contact tracing has been in place since the start of the pandemic through a time-consuming interview-based procedure relying on human memory, with all its inherent imperfections, and the delays it entails in identifying possible transmission to close contacts. Furthermore, with the pandemic likely to be with us for some time, the current approach, which places a huge burden on the

Medical Service, is not sustainable over the long-term. The new approach is more precise, and delivers more timely information to help CERN break the chains of transmission.

As of next year, CERN's contact tracing will be improved through the introduction of the Proximeter, a device that everyone with a CERN ID will be required to carry while on-site. Its main purpose is to improve CERN's response to the challenges of COVID-19, making the Laboratory a safer place for everyone. For the system to

work effectively, each and every one of us will need to wear the device while at work. As its name implies, the Proximeter is a proximity sensing device. It will vibrate to warn its carriers when they move to within two metres of each other for more than 30 seconds, allowing them to move to a safe distance apart. The Proximeter transmits details of the encounter every 15 minutes to a central database in CERN's main computer centre, protected with state-of-theart encryption and authentication mechanisms.

The decision to deploy the Proximeter as CERN's contact tracing device was taken by the Enlarged Directorate (ED) following extensive consultations across the Organization. The ED concluded that the Proximeter enables us to put health first whilst minimizing the intrusion into privacy.

Combating the spread of COVID-19 is the primary objective in rolling out the Proximeter, but privacy has been carefully considered. There is no location tracking – just proximity detection. The Proximeter only knows where it is with respect to other Proximeters. It does, however, know that information to an accuracy far better than that of mobile-phone-based apps,

which makes it very good at telling its holders when they are getting too close, while keeping their whereabouts confidential.

When a Proximeter transmits data to the Medical Service's database, that data is limited to the serial number of the device, and of the devices it has been close to, along with the time and duration of the encounter. Personal data linking the holder to the device number is stored in separate databases, and can only be matched by the Medical Service through a strictly monitored protocol. Data is protected at all times with state-of-the-art encryption and authentication mechanisms, and is held for 14 days before being deleted.

Proximeter data will not be processed automatically: only the data of those who call the Medical Service to declare symptoms, or a positive test, will be looked at. The information on encounters will then be discussed between those concerned and the Medical Service to determine whether or not there is a risk of transmission. Phonebased apps, on the other hand, simply notify the carrier of a close contact with an infected person, requiring self-isolation without a full understanding of the context of the encounter. Deployment of the

Proximeter will allow the Medical Service to determine the right course of action following an interview with the persons concerned, which will determine the level of potential contamination, for example by establishing whether masks were being worn.

As of this week, if you are on-site, you may start to see people carrying Proximeters as a pilot run gets underway. Some 950 devices have already been delivered to CERN, and are being deployed among members of key units, such as the CERN Fire and Rescue Service and the Medical Service. Full-scale deployment will begin in January, with details to be communicated when we return to work after the endof-year break. This will allow us to integrate lessons learned from the pilot period in the general roll-out. The obligation to carry a Proximeter while on-site will begin in March and continue until the pandemic is over. The regulatory framework governing the use of Proximeters will be defined in the CERN COVID-19 health and safety instructions, and published on CERN's coronavirus information webpages. The FAQ on those pages will also be updated to address any questions you may have about the use of the Proximeter. A training course on the functioning and use of the Proximeter will also be available in January.



## CERN ANNOUNCES NEW OPEN DATA POLICY IN SUPPORT OF OPEN SCIENCE

A new open data policy for scientific experiments at the Large Hadron Collider (LHC) will make scientific research more reproducible, accessible, and collaborative



Data storage solutions at the CERN data centre (Image: CERN)

Geneva, 11 December 2020. The four main LHC collaborations (ALICE, ATLAS, CMS and LHCb) have unanimously endorsed a new open data policy for scientific experiments at the Large Hadron Collider

(LHC), which was presented to the CERN Council today. The policy commits to publicly releasing so-called level 3 scientific data, the type required to make scientific studies, collected by the LHC experiments. Data will start to be released approximately five years after collection, and the aim is for the full dataset to be publicly available by the close of the experiment concerned. The policy addresses the growing movement of open science, which aims to make scientific research more reproducible, accessible, and collaborative.

The level 3 data released can contribute to scientific research in particle physics, as well as research in the field of scientific computing, for example to improve reconstruction or analysis methods based on

machine learning techniques, an approach that requires rich data sets for training and validation.

"The open data policy reflects CERN's commitment to open science, which was already asserted in the CERN Convention over 60 years ago," said Eckhard Elsen, CERN Director for Research and Computing. "The policy sets out the concrete steps towards its implementation at CERN, which will make data available to the extended scientific community as well as the general public."

Scientific data are considered to have different levels of complexity. Level 3 data are of the type used as input to most physics studies and will be released alongside the software and documentation needed to use the data. Its release will allow high-quality analysis by diverse groups: non-CERN scientists, scientists in other fields, educational and outreach initiatives, and the general public.

The policy also covers the release of level 1 and level 2 datasets, of which samples are already available. Level 1 corresponds to the supporting information of results published in scientific articles, and level 2 corresponds to dedicated scientific datasets designed for educational and outreach purposes.

In practice, scientific datasets will be released through the CERN Open Data Portal, which already hosts a comprehensive set of data related to the LHC and other experiments. Data will be available using FAIR standards, a set of data guidelines that ensure the data are findable, accessible, interoperable, and re-usable.

"The policy provides a progressive framework for the openness and preservation of experimental data," said Jamie Boyd, convener of the working group that formulated the policy. This strategy complements CERN's existing Open Access policy, which mandates that all CERN research results are published in open access. It is also aligned with the recent

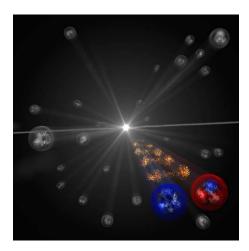
European Strategy for Particle Physics Update announced in June 2020. The new policy could be used as a blueprint for other experiments at CERN and in other scientific organisations.

CERN previously pioneered Open Access to scientific literature with the SCOAP3 consortium, a global partnership of libraries, funding agencies and research institutions from 46 countries and intergovernmental organisations, which is now the largest open access initiative in the world. In addition, CERN collaborates with many organisations, such as the European Commission and UNESCO, on its efforts to promote open science practices beyond particle physics.



## ALICE COLLABORATION OPENS AVENUE FOR HIGH-PRECISION STUDIES OF THE STRONG FORCE

The collaboration shows how proton-proton collisions at the Large Hadron Collider can reveal the strong interaction between composite particles called hadrons



An artist's impression of the ALICE study of the interaction between the rarest of the hyperons, Omega  $(\Omega)$  hyperon (left), which contains three strange quarks, and a proton (right). (Image: CERN)

In a paper published today in *Nature*, the ALICE collaboration describes a technique that opens a door to high-precision studies at the Large Hadron Collider (LHC) of the dynamics of the strong force between hadrons.

Hadrons are composite particles made of two or three quarks bound together by the strong interaction, which is mediated by gluons. This interaction also acts between hadrons, binding nucleons (protons and neutrons) together inside atomic nuclei. One of the biggest challenges in nuclear physics today is understanding the strong interaction between hadrons with different quark content from first principles, that is, starting from the strong interaction between the hadrons' constituent quarks and gluons.

Calculations known as lattice quantum chromodynamics (QCD) can be used to determine the interaction from first principles, but these calculations provide reliable predictions only for hadrons containing heavy quarks, such as hyperons, which have one or more strange guarks. In the past, these interactions were studied by colliding hadrons together in scattering experiments, but these experiments are difficult to perform with unstable (i.e. rapidly decaying) hadrons such as hyperons. This difficulty has so far prevented a meaningful comparison between measurements and theory for hadron-hadron interactions involving hyperons.

Enter the new study from the collaboration behind ALICE, one of the main experiments at the LHC. The study shows how a technique based on measuring the momentum difference between hadrons produced in proton–proton collisions at the

LHC can be used to reveal the dynamics of the strong interaction between hyperons and nucleons, potentially for any pair of hadrons. The technique is called femtoscopy because it allows the investigation of spatial scales close to 1 femtometre (10<sup>-15</sup>metres) – about the size of a hadron and the spatial range of the strong-force action.

This method has previously allowed the ALICE team to study interactions involving the Lambda  $(\Lambda)$  and Sigma  $(\Sigma)$  hyperons, which contain one strange quark plus two light quarks, as well as the Xi  $(\Xi)$  hyperon, which is composed of two strange quarks plus one light quark. In the new study, the team used the technique to uncover with high precision the interaction between a proton and the rarest of the hyperons, the Omega  $(\Omega)$  hyperon, which contains three strange quarks.

"The precise determination of the strong interaction for all types of hyperons was unexpected," says ALICE physicist Laura Fabbietti, professor at the Technical University of Munich. "This can be explained by three factors: the fact that the LHC can produce hadrons with strange quarks in abundance, the ability of the femtoscopy technique to probe the short-range

nature of the strong interaction, and the excellent capabilities of the ALICE detector to identify particles and measure their momenta."

"Our new measurement allows for a comparison with predictions from lattice QCD

calculations and provides a solid testbed for further theoretical work," says ALICE spokesperson Luciano Musa. "Data from the next LHC runs should give us access to any hadron pair."

"ALICE has opened a new avenue for nuclear physics at the LHC – one that involves all types of quarks," concludes Musa.



#### SPS KEY BACK IN THE HANDS OF THE OPERATIONS GROUP

After the PS, it is now time for the SPS to return to the Operations group's hands. Beam commissioning in the accelerator is scheduled for 12 April 2021



On 4 December 2020, the Accelerator Coordination and Engineering group (left) handed back the SPS key to the Operations group (right), in CERN's Control Centre (CCC). (Image: CERN)

Almost exactly two years ago, all SPS equipment was switched off and responsibility for the machine was handed from the Operations (OP) group in the

Beams (BE) department to the Accelerator Coordination and Engineering (ACE) group in the Engineering (EN) department.

Despite the SPS not accelerating particles, the tunnel was buzzing with action during Long Shutdown 2 (LS2). Many parts of the machine were taken apart and renewed or consolidated with the aim of increasing its performance and reliability.

On 4 December 2020, exactly as scheduled, members of the EN-ACE group concluded their task of coordinating, in close collaboration with all the equipment and service groups, the LS2 activities by handing the key of the upgraded SPS back to BE-OP, signalling the start of the hardware

commissioning period. During this nine-week period, the operations teams, working closely with the equipment experts, will make sure every piece of equipment and its associated software are working according to specifications. Then there will be a six-week cold check-out period, where the machine will run as if beams were being produced, but without particles, checking that everything is working in harmony like a finely tuned orchestra.

On 12 April 2021, the SPS will have to be ready to receive the first beams from the PS to commission all beams required for physics, so that the experimentalists in the SPS North Area can resume their physics data taking on 12 July 2021.



## CERN INTENSIFIES COLLABORATION WITH BRAZIL THROUGH SCIENTIFIC AGREEMENT WITH LEADING RESEARCH CENTRE

An agreement between CERN and the Brazilian Center for Research in Energy and Materials (CNPEM) was signed on 4 December 2020



CERN Director for Accelerators and Technology Frédérick Bordry (right) and CNPEM Director General José Roque da Silva (left, in front of the SIRIUS light source hall) signing the Collaboration Agreement (Image: CERN)

Brazil further strengthened its ties with CERN through the signature, on 4 December 2020, of a wide-ranging scientific and technological collaboration agreement between the Brazilian Center for Research in Energy and Materials (CNPEM) and the Organization. This agreement is particularly timely as the process for Brazil to become an Associate Member State of CERN progresses.

Frédérick Bordry, Director for Accelerators at CERN, met CNPEM Director-General José Roque da Silva virtually to sign the agreement, which establishes a framework for collaboration in research and development in areas of mutual interest. These include particle accelerator technology, magnet design and the study of superconducting materials. "I am delighted to sign this collaboration agreement. For 30 years, Brazil has been a strong partner in CERN's scientific activities. The signing of this new agreement will enhance our collaboration in scientific research, training, innovation and knowledge-sharing in the field of accelerator technology," explained Frédérick Bordry, adding that "CNPEM and

Brazil have many proven skills and talent in this area which will bring mutual benefits and motivate industrial partners."

CNPEM is a multidisciplinary research centre overseen by the Brazilian Ministry of Science, Technology and Innovations. Its expertise in the field of accelerator physics was recently bolstered by the design, building and commissioning of fourth-generation light source that will assist the centre in probing the properties of various materials. Although the purpose of SIRIUS differs significantly from that of the CERN accelerator complex, the technology and engineering behind the facilities are of the same nature, which heralds fruitful exchanges between the two institutions.

the SIRIUS synchrotron, a state-of-the-art This agreement could foster, in particular, joint projects in fields that are relevant for the Future Circular Collider (FCC) feasibility study, such as superconductivity, as well as the long-term involvement of Brazilian industry in CERN activities in the context of Brazil's potential accession as an Associate Member State of CERN.

Thomas Hortala



#### REINSTALLING THE REVAMPED ALICE MINIFRAME

#### The upgraded ALICE Miniframe was reinstalled in the experimental cavern in November



(Image: CERN)

This picture shows the ALICE Miniframe being reinstalled on the detector in mid-November 2020, after a two-year-long stay at the surface for upgrades.

Weighing in at 14 tonnes and measuring 12 metres long, the Miniframe is anything but "mini": it is a giant "plug" - a large metallic support structure, installed in front of the A-side of the ALICE Time Projection Chamber (TPC) and sitting partially in the L3 magnet. It has supported ALICE's systems since the detector's debut, carrying the services for the TPC and ITS (Inner Tracking System), such as power supply, cooling, gas, detector control, detector safety, trigger and data acquisition. It also houses the ALICE forward detectors, FIT-A (Fast Interaction Trigger A), the ALICE RB24 beampipe, and the compensator magnet. The Miniframe was designed to be easily removable in case the TPC needed to be extracted during long shutdown (LS) periods.

This came in handy during LS2, as the TPC was temporarily removed from the

cavern for upgrades. In January 2019, the Miniframe was brought to the SX2 surface hall, where it received new services and patch panels for the new ALICE tracker, the ITS2, including kilometres of new cables for the ITS2 and TPC. The support structures and cable trays were re-engineered to accommodate the cables, including the 7000 optical fibres needed to allow continuous readout from the TPC and ITS2.

The upgrades were completed just in time for the reinstallation in November 2020, when the fully refurbished Miniframe was lowered back into the cavern and inserted in front of the detector. Since then, work has been continuing to connect the services, with a view to getting the TPC operating by the end of the year.



#### **ROOTED IN SOCIETY**

From fraud protection to vaccine production, ROOT's wide-ranging impact is revealed in a conversation with Axel Naumann as part of our Knowledge Transfer spotlight series



Axel Naumann is a senior applied physicist in the Software Design for Experiments group (EP-SFT) (Image: CERN)

Axel Naumann spearheads the development of one of CERN's key digital tools, ROOT, which was originally designed for high-energy physics (HEP) and is now widely used in industry.

ROOT has been processing particle collision data since the time of the Large Electron-Positron Collider. What makes it stand out is its ability to detect anomalies in extremely vast datasets, and such anomalies may indicate new physics. This is just

one feature that makes ROOT applicable beyond HEP. So far, ROOT has proven well suited to help protect commodity and financial markets from fraud, improve vaccine production, analyse large genomics datasets and improve aviation safety.

Naumann, a senior applied physicist in the Software Design for Experiments group (EP-SFT), collaborated closely with the Knowledge Transfer (KT) group to foster these applications. "We've always learned

from our partners and vice versa, which allows the software to evolve." This is particularly relevant given that ROOT is distributed under an open-source licence: "People can immediately contribute to and have an impact on the production of the code. This means that it can evolve to cover different needs."

Collaborating with partners outside of HEP can also help Naumann and his team tap into additional resources for their work. "One of the earliest projects we had was with a potential start-up from the Norwegian University of Science and

Technology (NTNU). The start-up needed to learn more about ROOT, and we agreed that someone from their team could come to CERN to code with us. After six months of working together, some of that code is still in production today. Through these exchanges, we gain a deeper understanding of the digital challenges that companies face and, with our expertise in data processing software, we are able to guide them on the best tools to use."

Naumann sees this sharing of knowledge as inherent to CERN. "We are financed to do fundamental research and we should not forget that. Our job was not to invent the World Wide Web; it was to understand the nature of matter. However, it is always nice to be able to provide additional arguments for investing in fundamental science. We are financed by society. We should give back to society."

Learn more about how to get involved in CERN's Knowledge Transfer activities here (https://kt.cern/who-are-you/cern-personnel-collaborating-knowled ge-transfer-group).

Amy Bilton



### FOUR CERN TECHNICAL APPRENTICES IN THE CLASS OF 2020

CERN's final-year apprentices obtained their diplomas in spite of the difficulties posed by the COVID-19 crisis; two of them received prizes from the "Union industrielle genevoise"



Loïc Gurtner (top right) during his final examination (presentation and professional interview), which took place on 19 June via videoconference. (Image: CERN)

This year, due to COVID-19, CERN's four final-year technical apprentices completed their training in a slightly unusual way. Like everyone at CERN, they had to work from home for several weeks, which, when you're doing technical training, comes with a few added complications: "Some laboratory activities were obviously suspended or postponed, but online training sessions were added, and the apprentices were able to continue their classes via videoconference." explains Virginia Prieto Hermosilla. who is in charge of the technical apprentice programme. "Everyone did their best and adapted to the situation. The CERN supervisors and external experts monitored the process and 'visited' the apprentices via videoconference. This allowed the final-year students to progress with their individual practical coursework and to obtain their diplomas!"

Anthony Covini and Marco Travaini, electronics technicians, and Stefanie Alves and Loïc Gurtner, physics laboratory technicians, thus obtained their *certificat fédéral de capacité* (CFC) after four years of training at CERN. No mean feat in the present circumstances!

In addition, Anthony Covini and Loïc Gurtner were among the top mechatronics apprentices in Geneva and were awarded prizes by the *Union industrielle genevoise* (UIG). The prize-giving ceremony, traditionally held in December, has been postponed to next year.

At the start of the 2020-2021 academic year, five apprentices in their second year of training began their placements at CERN. Five apprentices in their first year have also been selected and will come to CERN next September, once they have

completed their basic training at the *Centre* d'enseignement professionnel UIG-UNIA.

In 2020, the CERN apprentices were hosted by the BE-BI, BE-RF, EN-MME, EP-ESE, EP-DT, TE-CRG, TE-EPC, TE-MPE, TE-MSC and TE-VSC groups, as well as by the *Hôpitaux universitaires de Genève* (HUG) and the *Haute école du paysage, d'ingénierie et d'architecture de Genève* (HEPIA). The commitment of the various groups to CERN's apprenticeship programme and the quality training and support provided by the supervisors undoubtedly contribute to the success of CERN's apprentices.

\*The CERN apprenticeship programme trains mechanical technicians, electronics technicians and physics laboratory technicians. It is coordinated by the TE department. For more information, please contact Virginia Prieto Hermosilla (TE-PPR).

Anaïs Schaeffer



#### 25 YEARS OF SERVICE AT CERN IN 2020

In this particular year, it is unfortunately not possible to hold the traditional congratulatory ceremony for our staff members who have reached 25 years of service. We extend our warmest thanks to the following 54 staff members for this milestone in their careers, and wish them the best for the future at CERN!	Ms. Foraz Katy EN-ACE	Dr. Duellmann Dirk IT-SC
	Mr. Chemli Samy EN-ACE	Dr. Desirelli Alberto PF-IN-QM
	Ms. Mallon Amerigo Sonia EN-ACE-AMM	Ms. Boureau Anne PF-OP-ATT
	Dr. Peon Guillermo EN-CV-GEM	Ms. Carvalho Correia Paula SMB-SSL
Dr. Benedikt Michael ATS-DO	Dr. Mathot Serge EN-MME-DI	Mr. Grawer Gregor TE-ABT-EC
Mr. Modena Michele ATS-DO	Mr. Jones Mark EN-SMM-HPA	Dr. Bremer Johan TE-CRG-CI
Dr. Bruning Oliver ATS-DO	Dr. Di Mauro Antonio EP-AID-DT	Mr. Herblin Lionel TE-CRG-OP
Mr. Arduini Gianluigi BE-ABP	Dr. Barney David EP-CMX	Mr. Cravero Jean-Marc TE-EPC-FPC
Ms. Pirotte Florence BE-ASR-SU	Dr. Gill Karl Aaron EP-CMX-DA	Mr. Michels Olivier TE-EPC-HPC
Mr. Schneider Gerhard BE-BI-ML	Dr. Capeans Garrido Maria EP-CMX-SCI	Mr. Hudson Gregory TE-EPC-HPM
Mr. Peryt Maciej BE-CO-APS	Mr. Lesenechal Yannick EP-DT-CO	Mr. Coelingh Gert-Jan TE-MPE-EE
Mr. Sowinski Piotr BE-CO-APS	Dr. Kluge Alexander EP-ESE-FE	Dr. Bottura Luca TE-MSC
Mr. Bau Jean-Claude BE-CO-HT	Dr. Kloukinas Konstantinos EP-ESE-ME	Mr. Parma Vittorio TE-MSC-CMI
Mr. Havart Frederic BE-ICS-CSE	Mr. Kaplon Jan EP-ESE-ME	Mr. Luzieux Sebastien TE-MSC-LMF
Mr. Martel Pedro BE-ICS-TI	Dr. Snoeys Walter EP-ESE-ME	PROF. Garcia Perez Juan Jose TE-MSC-MM
Mr. Epting Uwe BE-ICS-TI	Dr. Palestini Sandro EP-NU	Dr. Ballarino Amalia TE-MSC-SCD
Mr. Haase Matthias BE-RF-IS	Ms. Curdy Cecile HR-CB	Mr. Jacquemod Andre TE-MSC-SCD
Dr. Vandoni Giovanna BE-RF-SRF	Ms. Lara Arnaud Cristina IPT-PI-RI	Dr. Mangano Michelangelo TH-SP
Mr. Pym John DG-TMC	Dr. Gillies James IR-SPE	HR department
		пп иерантет



Mr. Sallaz Eric IT-CF-FPP

### **COMPUTER SECURITY: CERN'S NEW FIRST LINE OF DEFENCE**

Our new outer perimeter firewall is intended to boost performance and bandwidth as well as being a sophisticated means to better identify and protect against cyberattacks

Christmas has come early this year for and bandwidth as well as being a sophisthe Computer Security team and the ticated means to better identify and protect line of defence protecting the Organization Communication and Network group (IT-CS) in the form of hardware for a new outer perimeter firewall. This next-generation firewall is intended to boost performance

Mr. Losito Roberto EN

against cyberattacks.

CERN's outer perimeter firewall is the first from any malicious or otherwise unwanted network traffic entering its general-purpose network. The firewall exposes to the internet selected computing services that

need to be accessible from outside CERN, controls internet traffic from and to all user devices, and blocks malicious traffic. Due to an increasingly aggressive global cyberthreat landscape, it is imperative to strengthen our firewall's cybersecurity protection and detection capabilities using modern and sophisticated prevention tools. Unfortunately, the firewall currently installed at CERN, with its protective features and its limited throughput, has become insufficient to support the Organization's networking and protection needs.

Enter our Christmas present! CERN's new outer perimeter firewall will correct these two drawbacks – limited bandwidth and limited protection capabilities – and provide a sustainable solution for the next seven plus years.

On the hardware side, it will be able to digest, filter and control up to 200 Gb per second in uplink (i.e. leaving CERN) and downlink (i.e. entering CERN) traffic without any performance penalty. Its set-up is flexible, meaning that this total bandwidth can be adapted to CERN's current and future needs and ramped up whenever necessary. Of course, hardware redundancy will guarantee high availability and spare CERN from connection problems in the event of one of the hardware chassis or their network connections failing. And the whole functionality will be integrated into the network automation software developed and used by IT-CS, to ensure that configurations are properly managed and can be changed easily and consistently.

On the computer security side, this new firewall benefits from advanced threat in-

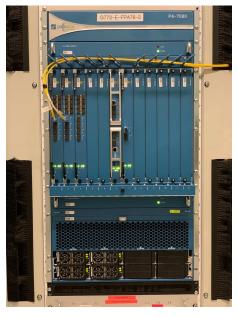
telligence, which offers enhanced capabilities compared to traditional threat prevention services. Such threat intelligence services rely on security researchers to track down specific threat groups, ranging from cybercriminals to nation-state attackers, in order to produce detailed, up-todate, specific indicators for detecting malicious attacks. Combined with the threat intelligence already available to CERN's Computer Security team, this means sophisticated potential attacks will be automatically identified and malicious content automatically filtered before it can cause harm.

These advanced services also make it possible to enforce certain CERN Computing Rules (OC5) by blocking internet content that is considered to be inappropriate (e.g. pornographic or sexually explicit material, or sites that promote the abuse of both legal and illegal drugs) or offensive (e.g. websites promoting terrorism, racism, fascism or other extremist views that discriminate against people or groups of different ethnic backgrounds, religions or other beliefs, but not websites discussing controversial political or religious views) or violates applicable laws (e.g. sites that infringe copyright by illegally offering music, movies or other media for download). We still need to determine the extent to which such content should be blocked without overly restricting our academic liberties and freedom of communication. We would like to hear your thoughts on this - write to us at Computer.Security@cern.ch.

In the next few months, the IT-CS experts and the Computer Security team will put this lovely Christmas gift of a new firewall into production – for a better first line

of defence. And we want to spread the Christmas spirit by wishing you all a happy and healthy holiday season. Enjoy your time off, take care of yourself and your family, and stay safe and secure!

Do you want to learn more about computer security incidents and issues at CERN? Follow our Monthly Report. For further information, questions or help, check our website or contact us at Computer.Security@cern.ch.



CERN's new outer perimeter firewall. (Image: CERN)

The Computer Security Team

### Official communications

## END-OF-YEAR ONLINE DISCUSSION WITH THE DIRECTORATE – RECORDING AVAILABLE

On Tuesday, 15 December 2020 took with CERN Directorate. You can find more information on this Indico page: place the end-of-year online discussion the recording of the discussion and https://indico.cern.ch/event/984135/.



# CLARIFICATION OF THE FRAMEWORK GOVERNING THE ISSUANCE OF INTERNAL TAX ANNUAL CERTIFICATES FOR ASSOCIATED MEMBERS OF PERSONNEL

Questions have recently been raised with respect to the framework applicable to the issuance of internal tax annual certificates to associated members of the personnel (MPAs).

Today, the term "subsistence allowance" is used for both allowances that CERN pays to MPAs\* and allowances that it processes in favour of MPAs upon the instruction, and on behalf of, third-parties, i.e. institutions involved in the experimental collaborations or the collaborations themselves. In the interest of transparency, the Management has proposed to introduce the term "cost-of-living allowance (COLA)" for the latter case in the Staff Rules and Regulations. The purpose of both allowances is to defray the costs incurred by MPAs in the local region during their time at CERN.

Regardless of the name, allowances processed on behalf of a third party are not paid by the Organization, which therefore cannot issue internal tax certificates for those payments. This resulted from the recommendations by CERN's Internal Audit Service and from numerous exchanges with the fiscal authorities in our two Host States, France and Switzerland. For this reason CERN has announced already in 2017 that it will no longer issue internal tax annual certificates for allowances processed on behalf of a third party. Although this measure should have been implemented with immediate effect in order to fix an historical anomaly, a one-year grace period was negotiated with the Host States and a second year was granted because the accompanying support measures for completion of the tax declarations could not be put in place due to difficulties related to the COVID-19 pandemic.

From 2020 onwards, recipients of third-party allowances shall receive an "Individual Annual Statement" which can be used in preparation of their tax declarations. With respect to France, any actual costs incurred during the recipients' stay in the local region may be deductible for income tax purposes. Practical modalities will be specified in the Admin e-guide in due course.

The proposed new framework introducing the new term COLA was approved by the Council at its December 2020 Session and will come into effect on 1 January 2021.

\*This covers all students, project associates and payments initiated by CERN.

HR department



## ANNUAL ADJUSTMENTS TO FINANCIAL BENEFITS WITH EFFECT FROM 1 JANUARY 2021

In accordance with recommendations made by the Finance Committee and decisions taken by Council in December 2020, certain financial benefits impacting salaries and stipends have been adjusted, with effect from 1 January 2021:

A 0.44 % increase to the scale of basic salaries paid to Staff Members

and to the scale of stipends paid to Fellows (Annexes R A 5 and R A 6 of the Staff Regulations).

 No adjustments have been made to subsistence allowances, family, child and infant allowances (Annex R A 3 of the Staff Regulations) and to payment ceilings of education fees (Annex R A 4 of the Staff Regulations). The amended text of the Staff Regulations will be available shortly on the Web at: CERN Staff Rules and Regulations (https://cds.cern.ch/collection/Staff% 20Rules%20and%20Regulations?In=en)

HR department



## MODIFICATION NO.16 OF THE STAFF RULES AND REGULATIONS – 11TH EDITION

In accordance with the decisions taken by the Finance Committee in December 2020 (CERN/FC/6446 and CERN/FC/6448) and by the Council in December 2020 (CERN/3533 and CERN/3535), please find below the pages of the Staff Rules and Regulations which have been updated further to the modifications coming into force on 1 January 2021:

Chapter II – Conditions of Employment and Association

Section 2 – Classification and merit recognition

Articles R II 2.06 and R II 2.08, modification of page 17

Section 5 – Termination of contract
Article R II 5.01, modification of page 29

Chapter V - Financial Conditions

Section 1 - Financial benefits

Articles S V 1.01 and R V 1.04, modification of pages 41 and 42

Section 2 - Taxation

Articles R V 2.05 and R V 2.06, modification of page 49

Annex R A 5 - Monthly basic salaries of staff members, modification of page 71

Annex R A 6 - Stipends of fellows, modification of page 72

The complete updated electronic version of the Staff Rules and Regulations is accessible via CDS (https://cds.cern.ch/record/1993099?In=en).

## CERN HEALTH INSURANCE SCHEME (CHIS) – NEW RULES AS OF 1 JANUARY 2021

The new Rules of the CERN Health Insurance Scheme (CHIS) will come into force on 1 January 2021. The changes concern the Scheme's membership conditions and the contributions of certain Members, following the introduction in the Rules and Regulations of the Pension Fund of new provisions governing the acquisition of a surviving spouse's pension. The changes are as follows (the corresponding articles of the Rules are indicated in square brackets):

**Changes affecting Subsidiary Members:** 

In the case of marriages taking place after the new Rules come into force, the spouse will be covered as a Subsidiary Member only if a surviving spouse's pension has been purchased.

[II 1.02 al. b, i]

Children born to a Main Member after 1 January 2021 and more than one year after the Main Member's retirement will be covered as Subsidiary Members only if **both** their parents are Members of the Scheme. **[II 1.02 al. b, ii]** 

Children adopted or officially recognised by a Main Member after 1 January 2021

and after the Main Member's retirement will be covered as Subsidiary Members only if **both** their parents are Members of the Scheme. [II 1.02 al. b, iii]

### Changes to surviving spouse's contributions:

The Organization will not pay contributions for beneficiaries of a surviving spouse's pension acquired after 1 January 2021. The total amount of the contribution will be payable by the surviving spouse. [Art. VII 2.03]

If a **partial** surviving spouse's pension is acquired, the deceased Member's reference salary used to calculate contributions (i.e. reference salary III) is reduced by the

same proportion as the **full rate** surviving spouse's pension, without taking account of the fact that the acquisition is partial. **[Art. XII 1.03]** 



## CERN HEALTH INSURANCE SCHEME (CHIS) – MONTHLY CONTRIBUTIONS AS OF 1 JANUARY 2021

As the CHIS contribution rates are unchanged for 2021, the CHIS contributions have evolved with the change in the relevant Reference Salary (see Chapter XII of the CHIS Rules). Thus, as of 1 January 2021, the lump-sum monthly contributions based on Reference Salary II will be as follows:

 Lump-sum contributions for voluntary members The monthly contribution for voluntary members (e.g. users and associates) with the normal health insurance will be 1235 CHF per month, whilst for those with the reduced health insurance it will be 617 CHF.

 Lump-sum contributions for postcompulsory members other than CERN pensioners For post-compulsory members other than CERN pensioners, the monthly contribution will be 1319 CHF in the case of former staff members and former spouses continuing their affiliation, whilst in the case of formerly dependent children continuing theirs it will be 528 CHF.

HR department



## ADMINISTRATIVE CIRCULAR NO. 26 (REV. 12) – RECOGNITION OF MERIT

Administrative Circular No. 26 (Rev. 12) entitled "Recognition of Merit" approved by the Director-General following recommendation by the Standing Concertation Committee after its meeting on 5 October 2020, is available via the following link: https://cds.cern.ch/record/2746785?ln=en.

This circular cancels and replaces Administrative Circular No. 26 (Rev. 11) entitled "*Recognition of Merit*" ("AC 26") as from 1 January 2021.

The main modifications are summarized below:

 Procedure for performance recognition in case of absence during the reference period

Section II. E. "Specific conditions applicable to staff members on special leave for professional reasons", which currently includes the requirement to obtain perfor-

mance appraisals from outside institutions, is removed.

Instead, new paragraph 28 provides that staff members who have worked for CERN for less than a third of the reference period receive a performance appraisal, which shall be limited to a brief description of the work carried out and the type and duration of the authorized absence(s).

In addition, it is clarified that staff members who are in their probation period or who have <a> worked for CERN </a> for less than a third of the reference period (except in case of maternity leave) are not eligible for a performance qualification or a performance reward (new paragraphs 33 and 35).

Career reviews initiated at the request of staff member

The purpose of the modifications in Section IV. B. is to clarify the role of the depart-

ment head in career review procedures (paragraphs 47 to 49). In particular, when the career review is at the request of the staff member, the departmental committee submits its recommendation directly to the Director-general.

#### · Other technical modifications

New paragraph 58 specifies that the coordination and harmonization of merit recognition within departments is not applicable in case of career reviews at the initiative of staff members.

Annex I bis "transition measures" is supressed as no longer applicable.

Paragraph 1 of Annex 1 is revised to clarify that salary increases shall not exceed the maximum of the staff member's grade.

HR department



## CERN HEALTH INSURANCE SCHEME (CHIS) - OPENING HOURS OF UNIQA OFFICES DURING END-OF-YEAR CLOSURE

Please note that the UNIQA office at CERN (Main Building) will be closed during the two-week end-of-year closure.

We remind you that the UNIQA offices in Geneva remain closed to the public until further notice. However, you can still contact UNIQA services in Geneva by phone at +41 22 718 63 00 during the following opening periods: from 8 a.m. to 12.30 p.m. and from 1.30 p.m. to 5 p.m. (4 p.m. on 24 and 30 December 2020) except on 25, 31 December 2020, and 1 January 2021, or by email at contact@uniqa.ch

For urgent medical assistance, you may

call UNIQA Assistance +41 22 819 44 77, 24h/day throughout this period. Please note that this service only provides medical advice and urgent assistance services and is not in a position to inform you on the coverage by CHIS of medical expenses.

HR department



## ACCESS TO THE ORGANIZATION'S SITE DURING THE 2020 END-OF-YEAR CLOSURE

This year, CERN will be closed from Saturday, 19 December 2020 to Sunday, 3 January 2020 inclusive. The first working day of the new year will be Monday, 4 January 2020.

As is the case every year, the only persons who will be entitled to enter the CERN site during the end-of-year closure are those who have been authorised to do so for strictly professional reasons (stand-by service and indispensable maintenance work).

Each department and, in particular, each experiment's technical coordinator, is responsible for compiling a list of the persons concerned by Friday, 18 December 2020.

Unlike in previous years, it is no longer necessary to include members of the per-

sonnel of outside companies in these departmental lists. Any members of the personnel of outside companies who are required to work on the CERN site during the closure must have a valid notice of work to be done outside normal working hours (AET). Please note that AETs must be limited to the time needed to perform the work in question or, in the case of annual AETs, must not extend beyond 17/12/2021. As a reminder, all 2020 AETs will end on 18/12/2020 at the latest.

During the period when the Laboratory is closed, i.e. from 19 December onwards, any personnel who need to enter the CERN site for an urgent reason and without the prior authorisation of their department or their experiment's technical coordinator will be obliged to submit

an access request ("CERNXMAS" permission request), which may be signed by the Security service or the CCC (TI) after its legitimacy has been assessed. The "CERNXMAS" permission option will not be available in the ADAMS system until 20 December. This provision does not apply to members of the personnel of outside companies, since they must have a valid AET.

We would also like to remind you that all CERN services (including the restaurants and the library) will be closed during the end-of-year closure.

We thank you for your cooperation and wish you all a very happy holiday!

SMB department



## SERVICE AVAILABILITY DURING CERN'S ANNUAL CLOSURE 2020/2021

#### **General Services**

As always, just like the emergency and fire service (+41 22 76) 74444, the security service remains operational every day of the week at all times of the day and can be reached at (+41 22 76) 78878.

However, the services provided by the SMB department requiring human presence (such as the CERN hotel, the car sharing service, the shuttle service, etc.) will not be operational during the end of the year closure.

Services that do not depend on a continuous human presence will remain available, though offering a reduced level of support during this period. In general, the response time for regular issues will be half a day (not guaranteed), but in case of serious failure, the reaction time will depend on the arrangements that have been made with the supported services.

Any incidents will be documented on the CERN Service Status Board. For more

information, please consult the CERN Service Portal.

Please also note that the heating on the Meyrin and Prévessin sites will be switched to a low-heat mode. This reduced level will lead to a slight drop in temperature, in order to maximise energy savings during this period of low occupancy.

#### **Computing Services**

Most of the services provided by the IT

department - including WLCG production services - will remain available during the CERN annual closure. No interruptions are scheduled but in case of failure, the restoration of services cannot be guaranteed.

Problems will be dealt with on a **best-effort basis only** and the availability of specific services might be limited by the availability of other services.

#### Please note that:

- All network and telecom services will run as usual, field technicians will act upon failures on the infrastructure, but changes requiring human intervention will not be possible.
- Incidents will be listed on the CERN Service Status Board for Computing.
- With the exception of 24 & 25
   December and 31 December &
   1 January best-effort support
   can be expected for the following

services: activation of accounts, AFS, CASTOR, CDS, CERN Grid, CERN Tape Archive, CERNBox, Cloud Infrastructure, CodiMD. Configuration Management, CRIC (production dependency for ATLAS & CMS), CVMFS, Data integration and reporting / Pentaho, Databases, Discourse. DFS. DNS Balancing, Drupal, Elastic Search, EOS, FTS, HADOOP, E-mail. Indico, Inspire, Java web hosting, JIRA, Linux, Linux Software Building, Ixbatch, Ixplus, Mattermost, Monitoring, Multimedia. Network & Telecoms, Newdle, Open Data Repository, OpenShift, Oracle web hosting (Apex), REANA, resetting passwords, room booking system, S3, Sentry, ServiceNow, SharePoint, Skype for Business, Streaming Data, TWiki, Version Control Systems (GitLab), Vidyo, Web, Windows, Windows Terminal Services, WLCG Accounting, Zenodo Repository and Zoom.

- The backup service will remain operational, but backups cannot be guaranteed and file restores may not be possible.
- For CASTOR & CERN Tape Archive services, problematic tapes will be handled after the CERN annual closure.

The operator service will be available and can be reached at (+41 22 76) 75011 or by email to computer.operations@cern.ch, where urgent problems may be reported.

Potential computer security incidents must be reported to Computer.Security@cern.ch or (+41 22 76) 70500 as usual.

Please remember to shut down and power off any equipment in your office that is not required during the annual closure.

CERN IT department, SMB department



#### **EXTENSION OF THE PRE-RETIREMENT PROGRAMMES**

Following a recommendation by the Standing Concertation Committee at its meeting on 24 November 2020 and approval by the Director-General, please note that:

- the Part-Time Work as a Preretirement Measure Scheme has been extended by one year, from 1 January 2021 until 31 December 2021,
- the Progressive Retirement Programme has exceptionally been extended by 9 months, from 1 April 2021 until 31 December 2021, for harmonisation and administrative simplification purposes.

Further information is available on the following links:

- Progressive retirement programme (https://admin-eguide.web.cern. ch/en/procedure/progressive-ret irement-programme-prp)
- Part-time work as a pre-retirement measure (https://admin-eguide. web.cern.ch/en/procedure/part-t ime-work-pre-retirement-measure -ptp)

HR department



## OFFICIAL HOLIDAYS IN 2021 AND END-OF-YEAR CLOSURE 2021/2022

#### Application of Articles R II 4.38 and R II 4.39 of the Staff Regulations

Official holidays in 2021 (in addition to the special leave during the annual closure):

- Friday, 1 January (New Year)
- Friday, 2 April (Good Friday)
- Monday, 5 April (Easter Monday)
- Thursday, 13 May (Ascension day)
- Friday, 14 May (compensation granted for 1st May)
- Monday, 24 May (Whit Monday)
- Thursday, 9 September ("Jeûne genevois")
- Friday, 24 December (Christmas Eve)
- Monday, 27 December (compensation granted for 25th December, Christmas)
- Friday, 31 December (New Year's Eve)

Annual closure of the site of the The Laboratory will be closed from Organization during the Christmas holidays

Wednesday 22 December 2021 to Tuesday 4 January 2022 inclusive (without deduction of annual leave). The first working day in the New Year will be Wednesday 5 January 2022.

Please direct your queries to: hr.leave@cern.ch

HR department

### **Announcements**

### NEW SCIENTIST ONLINE EVENT: TEN KEYS TO REALITY WITH FRANK WILCZEK

On January 28, 2021 Frank Wilczek is going to give a 1-hour online talk at 18:00 BST / 19:00 Geneva Time / 13:00 EST in the framework of the Big Ideas in Physics series from New Scientist

If you are interested in attending this event, the Library can get you a ticket. Please contact library.desk@cern.ch before January 7, 2021 (early bird registration).

More information on the event "Ten keys to reality with Frank Wilczek" on the New Scientist website.

Frank Wilczek's new book "Fundamentals: Ten Keys to Reality" will also be available in January.

CERN Library



#### SEND A CERN E-CARD

Send colleagues, family and friends holiday greetings using the CERN e-card service.

You can create your own personalised web.cern.ch/). Please note that this year's electronic cards by signing in with your CERN account on this site (https://ecard.

cards will only be available virtually and that no physical copies will be distributed.



### JOIN THE VOLUNTEERS FOR "WOMEN AND GIRLS IN SCIENCE AND TECHNOLOGY"

A week of presentations by female scientists and engineers will be held in local schools from 1 to 5 February 2021. Become an ambassador for science and inspire the next generation!



Presentation at the École de Chandieu in Geneva during the 2018 Women and Girls in Science and Technology event. (Image: CERN)

For the fifth year running, CERN, the University of Geneva's Scienscope and EPFL are joining forces to celebrate the International Day of Women and Girls in Science. From 1 to 5 February 2021, female scientists and engineers will visit schools in the region to present their professions to students.

They will talk about their career history, their daily work and the projects and ex-

periments in which they are involved, and may even give a short demonstration. The aim is to encourage young people to view scientific, technical and technological professions as being just as accessible to girls as to boys. And who knows, their speeches might even inspire some future career choices!

The Women and Girls in Science and Technology week has been hugely successful every year it has been held and comprised no fewer than 135 presentations in 2020! This is why we are always looking for more volunteer female scientists willing to give up a bit of their time to visit schools. So come and join the adventure by signing up by 6 January 2021.

**Practical information:** 

- Registration is open to all women working in a profession connected with science, technology, engineering or maths (STEM), as well as computer science, communication or education
- One-hour presentations for a maximum of 30 pupils from ages 7 to 15
- Mainly in French (95%), but English speakers can also sign up.

**COVID-19 information:** We are closely following the evolution of the pandemic

and the measures taken at CERN and in Geneva and France. A decision as to whether or not the event can proceed will be taken in January 2021. Virtual presentations will be offered to teachers in the event of cancellation.

To sign up and find out more, see: http://cern.ch/fds-interne.

Thank you for volunteering!



## CERN SHOP CLICK AND COLLECT FOR THE CERN COMMUNITY

Thanks to the CERN shop's new Click and Collect service, anyone with a CERN computer account can place an online and COVID-safe order for CERN merchandise



(Image: CERN)

The CERN shop, which is usually inundated at this time of year with visitors and people working at CERN, has been

desolately empty since it closed its doors in March because of the COVID-19 pandemic.

But the team that manages the shop has now put in place a Click and Collect service for anyone with a CERN computer account. You can order from a selection of more than 40 articles on the new online platform, and choose a date and time to collect and pay for them (by card only) at the shop, located at the CERN Reception (Building 33).

Every possible measure has been taken to guarantee your safety and that of the shop staff.

Why not share the CERN spirit with your family and friends this holiday? Enjoy 10% off all orders until 12 noon on 18 December (discount applied at time of payment).

Take advantage of this special offer while you can! Go to: http://cern.ch/go/shop

### Ombud's corner

### PERFORMANCE EVALUATION: THE MIRROR EFFECT

The season for MERIT evaluations, those important milestones in our careers, is almost upon us. Among the many traps awaiting the supervisors carrying out these evaluations is the so-called mirror effect: a phenomenon in which we tend to appreciate people who are like us. Studies have even shown that this effect comes into play in 60% of performance evaluations! And it's all the more prevalent when it comes to evaluating skills such as communication, efficiency, customer service, etc.

Susan\*: "My supervisor François\* criticises me for chatting too much with my internal clients. However, all of the programmes I'm responsible for are running marvellously well, to the full satisfaction of the people who use them."

Although Susan has all the raw data, she spends lots of time listening to her clients in order to understand their needs. François, on the other hand, is more at ease with rational analysis than interpersonal relation-

ships. He likes to convince, and be convinced, by numbers and tables. He therefore naturally tends to appreciate people who operate in the same way. This is why he frowns on Susan's frequent interactions with her clients. So how objective is François' opinion about Susan's performance? Can he accept that not everyone works in the same way as him and that others might reach their objectives via different routes?

The MERIT interviews are important milestones in our careers, since our future professional lives depend, in part, on the appraisal of our supervisors and the evaluation of our performance. It is therefore in everyone's interests to ensure that the exercise is conducted in an objective manner.

This is why, as supervisors, we must be aware of our prejudices and remember that

we project a lot of ourselves into the evaluation of our colleagues. By taking a step back and limiting ourselves to judging observable facts, we open the door to constructive dialogue and focus more on the development potential of our colleagues than on the final "grade". In this way, we can uncover the full extent of the skills of every member of our team.

\*Names have been changed

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*.