CERN Bulletin

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A NEW FACILITY TO SERVE THE NEUTRINO COMMUNITY

Following the recommendations of the European Strategy document, CERN is setting up a programme to fulfill the needs of neutrino detector R&D. In the framework of this programme, a new neutrino platform will be brought to light in the North Area in 2016 and the ICARUS neutrino detector is heading to CERN this week to be refurbished and upgraded.

The second ICARUS TPC left the Gran Sasso Laboratory in Italy on Tuesday 9 December and is expected at CERN before Christmas.

CERN's vocation is to provide particle physicists with state-of-the-art technical facilities and the new CERN neutrino platform will be no exception. "The new platform will allow the large community of neutrino experts to develop their R&D programmes here at CERN, in preparation for their participation in the large neutrino experiments that will be carried out world-wide," explains Sergio Bertolucci, CERN's Director of Research and Computing. "CERN's goal is to assist and foster collaboration among the various institutions in Europe, independent of which experimental solutions are eventually adopted by other labs."

Neutrinos are highly elusive particles that are very difficult to detect and study. Over recent years, several experiments have indicated the existence of anomalies that are not easily explained in the framework of existing theories. Models beyond the Standard Model (SM) have been developed to explain these results, some of which involve one or more additional neutrinos that do not interact in the same way as the three SM neutrinos. Further studies and more precise experiments are needed to better clarify the situation.

The new CERN facility will include a 70-metre extension of the EHN1 experimental hall, which will be able to host the experimental apparatuses. "We plan to operate the first charged beams in 2017 after all the civil engineering and infrastructure work needed to upgrade the experimental hall has been completed," says Marzio Nessi, CERN Neutrino

Rendering of the EHN1 extension.

(Continued on page 2)

60 MORE YEARS OF SCIENCE FOR PEACE: CARRYING THE MESSAGE FORWARD

At the end of 2013, we were just about to embark on a year of celebrations marking 60 years of science for peace at CERN. Our message was that science is an inescapable driver of peaceful relations among cultures and nations, a force for sustainability and a necessity in confronting the major challenges facing society today. Twelve months on, we can safely say that we've been successful in delivering that message.

(Continued on page 2)

In this issue

News

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A word from the DG

(Continued from page 1)

60 MORE YEARS OF SCIENCE FOR PEACE: CARRYING THE MESSAGE FORWARD

At 130 events in 25 countries, at UNESCO in Paris on 1 July, throughout our week of celebrations at CERN leading up to our 60th birthday on 29 September, and at UN Headquarters in New York on 20 October, members of the CERN community have been tireless in promoting the essential role of science in society. However, the message remains as true as it was 12 months ago, and as we move into 2015, we must continue to take every opportunity we have to ensure that those who shape our futures fully appreciate the essential role that science must play.

To that end, the CERN & Society programme continued to take shape through 2014 with the establishment of the CERN & Society Foundation. This programme serves as a focal point for a range of activities for which we will need third-party funding to ensure that CERN expertise and technology can benefit society fully. CERN & Society initiatives range from student projects like the Beamline for Schools competition to the ambitious OpenMed concept to develop LEIR as a biomedical research facility.

If we are to have continued success in promoting science, the visibility of CERN in the public sphere is a vital asset, so it's important that CERN has remained in the headlines throughout 2014. Our anniversary was, of course, a big story, but I was pleasantly surprised to see that physics stories from all our experiments continue to capture the public's attention. It's great that there's such interest in our science, and we need to nurture that as our research programme gets going again after a long period of maintenance and upgrades.

In 2014, the LHC's first long shutdown, LS1, reached a successful conclusion. Throughout the year, the accelerator restart has gone smoothly, with research getting under way on all of the facilities supplied by the warm accelerator chain, and excellent progress in preparing the LHC for beam next year. In November, protons were knocking on the LHC's doors as beams were successfully steered down both transfer lines from the SPS. Just last week, one full sector was powered to the equivalent of 6.5 TeV running, and as we approach the end-of-year break, the whole machine is nearing its operating temperature of 1.9 K.

In 2014, the CERN family has continued to grow. In January, the Israeli flag was raised at CERN for the first time to mark Israel's accession to Membership. Negotiations with many other countries are advancing steadily, and as the year draws to a close, I will be travelling to Pakistan to sign the agreement for Pakistani accession to Associate Membership.

We have achieved much in 2014, but we have not been alone, and my last message of the year gives me the opportunity to say thank you. Thank you to all those from other labs and institutes who have helped us achieve so much throughout LS1. Thank you to those who have helped us spread the message of science for peace and development, to the online community that helped make CERN the most effective international organisation on Twitter in 2014, according to one leading communication agency, and to the 100,000 enthusiastic visitors who passed through our doors this year. Most of all, however, I would like to thank you, the CERN community. I wish you all a peaceful end of year break, and look forward to seeing many of you at my New Year address to personnel on 8 January at 10 a.m. in the Main Auditorium.

Rolf Heuer

A NEW FACILITY TO SERVE THE NEUTRINO COMMUNITY

(Continued from page 1)

Programme project leader. "In 2014, CERN approved two projects to be developed in the framework of the neutrino programme: the refurbishment of the ICARUS T600 detector and R&D for the LAGUNA detector."

Weighing 760 tonnes, ICARUS T600 is the world's largest liquid argon neutrino detector. It was operated by an international collaboration in the Gran Sasso laboratory in Italy from 2009 to 2012. "ICARUS is the current 'state-of-the-art' in the use of liquid argon technology for time projection chambers," says Carlo Rubbia, who initiated the ICARUS idea and has been the spokesman of the experiment since 1977. "It has been very successful, the result of 25 years of research and development funded by INFN. One of the most significant features of this technology is the highly purified liquid argon in the detector, which permits impressive results in terms of free electron lifetime, measured in parts per trillion of oxygen-equivalent contamination. This new technology has opened the way to a new, 'bubble chamber-like' visual detector operating continuously at atmospheric pressure and recording calorimetric information precisely." The detector's time projection chambers (TPC) will now be overhauled at CERN in preparation for possible new uses in future experiments. The first chamber arrived at CERN on 1 December, while the second one left the Gran Sasso Laboratory Tuesday this week and should arrive at CERN before the end-of-year break.

The new neutrino platform will also contribute to all logistics aspects related to the R&D programmes, which will be approved by CERN committees and management. "The CERN platform will also support neutrino experiments in the field of cryogenics, magnet technology, integration and assembly techniques, and - in general - in all fields where CERN has a proven global expertise," concludes Bertolucci. "However, for the time being, CERN is not committing to any neutrino beam being built here. Instead, we remain open to discussions in view of a common roadmap to be agreed with the other laboratories."

Antonella Del Rosso

LS1 REPORT: LHCB'S EARLY CHRISTMAS

Accelerator chain up and running… CCC Operators back at their desks… all telltale signs of the start of Run 2! For the experiments, that means there are just a few short weeks left for them to prepare for beams. Over at LHCb, teams have kept ahead of the curve by focusing on new installations and improvements.

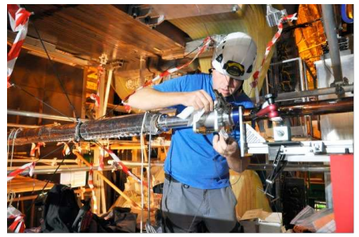
From the primary detector services to the DAQ system to the high level trigger, November's injector test beams saw their way through a well-prepared LHCb experiment. "We set the transfer line tests as our deadline for the restart - the entire experiment had to be at nominal position and conditions," says Eric Thomas, LHCb deputy Technical Coordinator and LHCb LS1 Project Coordinator. "Achieving this was a major milestone for the collaboration. If beam were to come tomorrow, we would be ready." The injector tests gave the LHCb team a chance to synchronise their detectors, and to align them into their final positions.

Among these detectors was a new addition to the experiment: the forward shower counters, known collectively as the HeRSCheL detector, located along the beam pipe on either side of the experimental cavern. "LS1 gave us an opportunity to develop suggestions from our users, which led to the installation of the HeRSCheL detector," says Rolf Lindner, LHCb Technical Coordinator. "It will allow us to identify particle showers induced in the beam pipe so that they can be better disentangled from other events."

Significant improvements were also made to the LHCb beam pipe, with one section completely replaced. "The new beam pipe is made of higher-quality beryllium, providing the required tightness for the beam's journey," says Thomas. "It was a very challenging piece to create as it is very long, thin, and must be free of any cracks. This highly specialised job was outsourced by CERN's vacuum group (TE) to a US firm with the expertise to handle the precise machining of this hazardous material." Meanwhile, the beam pipe support structures were replaced with a lighter alternative. Weight certainly wasn't the issue here, but rather "transparency". These new support structures will be less "visible" to traversing particles, resulting in less background in the detectors.

While the beam pipe was out of the way, the LHCb teams seized the opportunity to perform a detailed, uninterrupted magnetic field map measurement of their dipole. These results are still being analysed and will be incorporated into track reconstruction software to improve tracking during Run 2.

With LS1 almost behind them, shutdown teams are already looking ahead to the next shutdown. "LS2 will be a much more extensive upgrade, as we will increase readout from 1 MHz to 40 MHz," says Linder. "To accomplish this, we will have to completely replace our electronics, some of which are physically in place on the detectors. Many of the detectors will have to be replaced, and work on their new elements can begin as soon as LS1 officially wraps up."



A delicate task: re-connecting the beam pipe in LHCb.

Katarina Anthony

Meanwhile, elsewhere…

Before enjoying the winter break, LS1 teams are wrapping up some final tasks: tunnel cleaning activities, the commissioning and installation of forward detectors at Point 2, and the regular set of LHC tests. Of those, powering tests remain in progress in Sectors 1-2 and 5-6, while ELQA tests have just been completed in Sector 2-3 and are in progress in 7-8. CSCM tests have wrapped up in Sector 3-4, and cool-down is in progress in Sector 4-5.

Over in Sector 6-7, 19 training quenches have been achieved so far, reaching the nominal current for 6.5 TeV. Read more about this achievement in "One LHC sector up to full energy" **(cern.ch/go/CD7H)**.

The last week before Christmas will be spent setting the cryogenic system to stand-by, with all stand-alone magnets, inner triplets and DFBs emptied of liquid helium. These elements will return to cryogenic conditions at the end of week 2 (2015), after which the key will be given back to Operations.

I'M DREAMING OF A WHITE CLEAN ROOM…

New HIE-ISOLDE cryomodules are now under construction in a state-of-the-art clean room facility in SM18.

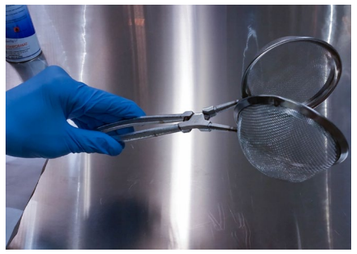
The HIE-ISOLDE clean rooms in SM18.

HIE-ISOLDE is set to be the world's leading nuclear physics site, ultimately accelerating radioactive nuclei to an impressive 10 MeV/u. Helping the facility reach this energy are new superconducting cryomodules, the first quarter-wave cavity module to be assembled at CERN and necessitating a custom clean-room in SM18.

At a towering five metres tall, the new clean room houses a custom assembly frame and associated equipment, moving the components of the 6 tonne cryomodules both vertically and horizontally while they are being assembled. "Each cryomodule is made up of some 10,000 parts, which have come from across the continents to be assembled here," says CERN TE engineer Lloyd Williams, who is managing quality assurance for the project. "Each part is checked by the CERN team, catalogued and thoroughly cleaned, before being installed in the cryomodule with sub-millimetre precision."

While piecing together this complex puzzle is tough enough, the team also needs to keep the module pristine during every phase of assembly. "The cryomodules feature a single vacuum, with no separation between the beam and insulation vacuums," says CERN

TE engineer Yann Leclercq, who is leading the cryomodule assembly team. "This means the entire assembly zone needs to be kept as pristine as possible, as a single speck of dust could later pollute sensitive RF cavities and seriously affect the cavity performances. Our clean room has a constant flow of filtered air, keeping the construction area spotless, and we keep interventions in the room to a minimum to avoid any unnecessary contamination."



Not all clean room equipment is super high tech! This "tea strainer" is used to hold small elements to be cleaned, thus reducing contamination from gloves.

It's a delicate process, and one that will take the assembly team six long months to get just right with the help and support from the Beams and Engineering Departments. The first cryomodule should be completed and assembled in the HIE-ISOLDE facility by mid-2015. Then it will be given to BE-RF experts, the equipment owners, for final RF validation.

Katarina Anthony

FABIOLA GIANOTTI SIGNS HER CONTRACT AS CERN'S NEW DIRECTOR- GENERAL

On 12 December 2014, Fabiola Gianotti signed her five-year contract as the new CERN Director-General. Her mandate will begin on 1 January 2016.

Fabiola Gianotti (left) and President of CERN Council Agnieszka Zalewska (right) after the signature of the contract.

The Italian physicist, Fabiola Gianotti was appointed as the Organization's next Director-General at the 173rd Closed Session of the CERN Council on 4 November. The appointment was formalised this week at the December session of Council.

Antonella Del Rosso

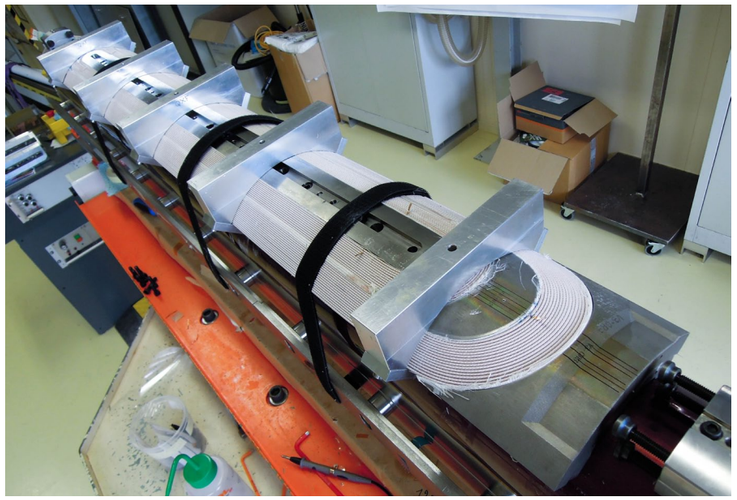
HL-LHC UPDATES IN JAPAN

At a recent meeting in Japan, updates on the High Luminosity LHC (HL-LHC) project were presented, including the progress made so far and the deadlines still to be met for the upgraded machine to be operational from 2020.

The LHC is the world's most powerful particle accelerator, and in 2015 it will reach yet another new record for the energy of its colliding beams. One key factor of its discovery potential is its ability to produce collisions described in mathematical terms by the parameter known as "luminosity". In 2025, the HL-LHC project will allow the total number of collisions in the LHC to increase by a factor of 10.

The first step in this rich upgrade programme is the delivery of the Preliminary Design Report (PDR), which is also a key milestone of the HiLumi LHC Design Study partly funded by the EU. "At our 4th Joint HiLumi LHC-LARP Annual Meeting we approved a first version of the PDR, which will be published by March as a CERN Report," confirms Lucio Rossi, HL-LHC Project Leader. "We also officially announced the new HL-LHC timeline to the collaborators."

Whether or not the plan is achievable depends on the progress made with the new technologies required to allow a huge increase in luminosity without building a totally new accelerator. They include breakthroughs in accelerator physics, innovative high field superconducting magnets; crab cavities based on a technology never used before in an accelerator; a new collimation system with advanced material; and a novel cold power system concept, which uses an electrical transmission line with a world record-breaking superconducting cable. "The whole HL-LHC project is extremely technically challenging but in Japan all the work package teams were able to report on their achievements," says Rossi. "From the baseline for the layout of the new interaction region, including the collimation scheme, to the testing of three prototype crab cavities, we are very happy with the present status. Over 300 people from 20 institutes around the world are participating in this project and we really appreciate their exceptional skills and motivation."

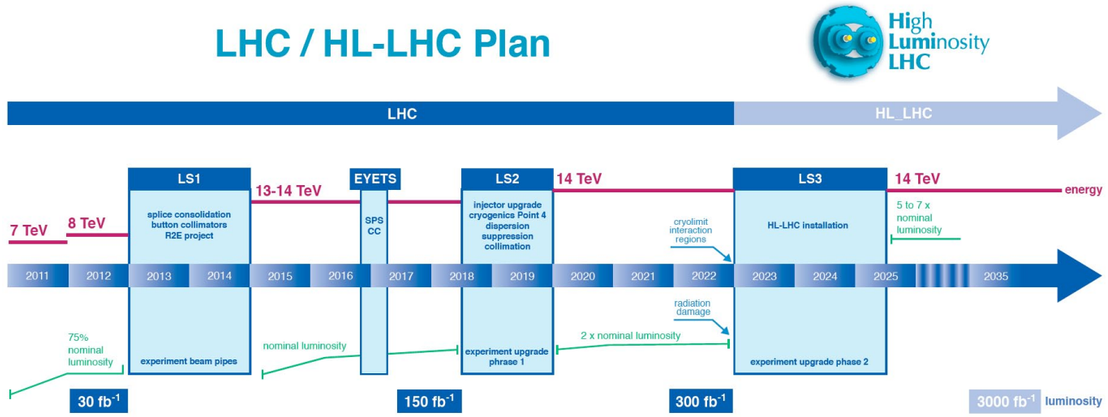


New magnets made with advanced superconductor Nb_3Sn in the framework of the HL-LHC project. These magnets are currently under construction at CERN by the TE-MSC group.

Once all the new elements are installed, the LHC will also be a new machine for the experiments. Indeed, as increased luminosity acts as a new powerful magnifying lens for the processes that drove the development of the universe, it is also a huge technological challenge for the experiments, requiring new levels of performance by both the hardware and software of all the sub-detectors.

2015 will be a crucial year for the HL-LHC community as the Hi-Lumi LHC study – the umbrella that brings together various R&D efforts and includes participants from the European Research Area as well as from the US (LARP) and Japan – will be completed and many subsystem design studies will also be finalised. The community is also preparing special events throughout the year to celebrate the UNESCO International Year of Light. Until then… Season's Greetings to all our readers!

Antonella Del Rosso



The new HL-LHC timeline.

MYSTERY PHOTOS: CHRISTMAS EDITION

Paraphrasing George R.R. Martin's novel Game of Thrones' most famous quote: "Christmas is coming". According to tradition, we've themed our last issue of the year to share the spirit of the festivities with our readers. We've collected some pictures of snowy scenes and Christmas parties at CERN from our archives.

Identifying pictures and albums in the CERN photo archive continues apace and we still need your help. However, in keeping with the holiday spirit, we've set you some Christmassy challenges.

Were you at any of the events shown below, or do you recognise anyone in the pictures? Get in touch by email: **photo.archive@cern.ch** or use the "suggest a caption" link on each picture's page.

So far, more than 33,000 pictures have been uploaded, with nearly 1,000 old album records inspected and about 150 new ones created. We've had contact from an ever-increasing number of retirees and friends of CERN, which has proved extremely useful in getting detailed information about the people and equipment shown in certain pictures.

This digitisation project is a collaboration between the Collaboration and Information Services Group (IT-CIS) and the Scientific Information Service (GS-SIS).

Alex Brown, Jens Vigen, Rosaria Marraffino

A SIMPLE WISH: TO TOUCH A PLASMA BALL

On Wednesday 3 December, Plinio and Sofia, two young kids from Ticino, visited CERN accompanied by their parents. Organized by Make-A-Wish Switzerland – a foundation that grants wishes to children living with life-threatening conditions – the visit was the opportunity for Plinio to see his dream of touching a plasma ball come true.

Plinio, 6 years old, and Sofia, 11 years old, suffer from a rare disease known as Fanconi Anemia. On 3 December, they visited the Globe, the ATLAS visitor centre and the Microcosm. The whole family also enjoyed a special session of "Fun with Physics" presented by Dominique Bertola, from the CERN Education Group.

Both kids showed their strong interest in CERN: Plinio surprised everybody with his impressive knowledge of antimatter and Sofia went home with an even stronger interest in science and mathematics.

After the visit, the Make-A-Wish Foundation fulfilled Plinio's wish for a shiny plasma ball, which both kids are now enjoying at home.

CERN Bulletin

Plinio, 6 years old, his sister Sofia, 11 years old, and their parents during their recent visit to CERN (top); back home (bottom) with Plinio's Make-A-Wish gift. (Photo credits: top: Make-A-Wish Foundation; bottom: provided by the family)

OMBUD'S CORNER

MAKE YOURSELF A GIFT: ENJOY YOUR HOLIDAY!

The winter break is a vital opportunity to leave behind the end-of-year workload stress, compounded by the rush to complete tasks in preparation of the year ahead, and focus on some genuine rest and recuperation. The challenges of 2015 can only be met if our batteries are correctly recharged: so full steam ahead for a holiday period devoted to a well earned rest and a crucial change of air and ideas!

The importance of restful holidays is a recognised downtime in all modern democracies. This is needed to overcome the work-related stress that is a growing problem in today's work environment by ensuring the rest and recuperation that is necessary for the wellbeing of all personnel.

In the field of information technology, experts know that machines would not work without "WMS", which stands for "Workload Management Service". Things can go very differently when instead of "jobs" for computers we talk of "tasks" for people … and we often forget to take that crucial step back from our commitments in favour of ensuring a healthy balance of activity overall.

Sometimes, at the outset, we do not realise the extent of work involved when we accept a single additional task and, on the other side of the equation, supervisors often have only a rough idea of the overall workload involved. This can happen, in particular, when the team is large, when there are several demands in parallel on our time or when the communication between the supervisor and the supervisee is not optimal.

The end-of-the-year period can be particularly critical as a backlog of tasks builds up in view of the annual closure of the Laboratory. In these cases, it is important to moderate any further requests and also to agree on priorities for existing commitments, which may even lead to simply leaving something behind. Supervisors have a responsibility to keep on top of the situation at such times, and to remain very well informed of the level of activity in their teams, in particular when they are not usually in daily contact with their staff.

It is also a time of anxiety in some areas as we approach the end of the CCRB exercise and colleagues face changes both for themselves and/or for their environment. Here again, supervisors play a critical role in managing the communication of decisions and being generally available and sensitive to the needs of their staff.

These situations are understandably challenging and a lot of good will and determination is required in order to keep the stress levels as low as possible. However, it is well worth the effort, as work-related stress caused by long hours, intense workloads, conflicts with colleagues or supervisors and job insecurity can cause health and performance problems.

What is the answer? Communication, communication and communication… we cannot underestimate the importance of sharing our perceptions and our experience on the one hand, and of listening to others and being attentive to their needs. An open dialogue between supervisor and supervisee is essential to understanding workload issues, as well as other sources of stress.

And what if this need to communicate is in itself a source of stress? Remember the Ombud is available to all colleagues, whether supervisor or supervisee, who wish to sound out their ideas or reflect on their options before taking them up with each other. In some cases, it may even be advisable to opt for an informal mediation where both parties agree to meet in the presence of the Ombud with a view to understanding their differences and moving on.

Let's make enhanced understanding and communication one of our New Year's resolutions!

Season's Greetings and a happy holiday season to all!

Sudeshna Datta-Cockerill

BEHIND THE SCENES OF GS

SERVICE ORIENTATION CERN-WIDE

A far-reaching project to improve the management of services was initiated in 2010, through the implementation of standard methods and tools to improve the efficiency of CERN services continuously.

Everyone at CERN now knows the telephone number 77777, the e-mail address **service-desk@cern.ch** and the CERN Service Portal. Behind all this lies a one-stop-shop where a team of operators is ready to answer your call as swiftly as possible and help you send that over-sized parcel to Patagonia or repair those faulty blinds (see Bulletin article 44-45/2013). But that's not all, as Reinoud Martens, head of the Service Management Support Group in the GS Department, explains: "As far as the service management project is concerned, receiving and assigning incoming calls is just the tip of the iceberg! More generally, the aim of this massive project, launched in 2010 in close collaboration with the IT Department, is to enhance service management and implement standardised methods and tools."

A number of initiatives have been taken to improve the efficiency of services on the CERN site and to save precious time for the people working here. In so doing, the GS-SMS Group follows industry standards, such as ISO 20000 and ITIL V3.

The Service Desk handles 400 tickets per day, but these only account for 50% of the service requests. The other half come directly from the services managing the jobs. "Whether a request comes through the Service Desk or not, what counts is to standardise the methods," explains Olaf van der Vossen, the GS-SMS deputy Group Leader. "That way, the resolution of problems is no longer left to one individual with specific knowledge but can be taken over by colleagues, without the "customer" needing to understand the organisational mechanisms by which the problem was solved."

This new approach has been adopted by more and more CERN services. The service management system today covers 300 registered services, provided by 1000 people ("supporters"), who therefore use it on a regular basis. Outside the GS and IT Departments, more and more services in the FP and HR Departments as well as in the DG groups (e.g. radiation protection) are interested in adopting or have already adopted the system.

In addition to the tool for managing service requests, the service management system also includes quality indicators. These provide instantaneous data on parameters such as the number of requests that have been resolved in a given time. "The tool can be used by all supporters to improve their service offering," explains Olaf van der Vossen. "These dashboards are used more and more because they oblige discussions on services to focus on objective data rather than on hearsay."

In addition, supporters can contribute to a knowledge base which documents repetitive actions and centralises information on similar incidents. Once such incidents have been documented, internal discussions are initiated to try to understand root causes and bring about broad solutions to problems. "Problem management is the second part of the project," van der Vossen explains. In the same framework, the Group has launched an initiative enabling services to improve on the basis of user feedback. "We've started organising service analysis meetings with heads of services and representatives of users," Martens explains.

The Group will organise other such meetings in the coming months, also to encourage people to use the knowledge base. The overall aim remains the same: continuous improvement in services and adoption across the Organization.

Corinne Pralavorio

COMPUTER SECURITY

WORKING PRIVATELY IN PUBLIC

Gosh, was he annoyed! I just came back from a long duty trip. Nine hours straight on the plane. As usual plenty of time to get some long awaited emails answered, time to write another document, and to prepare some presentations. The guy sitting next to me was probably thinking the same. So, from time to time I gazed over and looked at his screen following what he was working on. Curiosity is part of my job. Laptop screens are attractive. Discretion is part of my job, too. But given the confined space in the economy class of an Airbus, the screen was just shining at me and he was not able to move away or reposition his screen… He seemed to feel increasingly uncomfortable. Consequently, he gave up and read the newspaper instead. Obviously annoyed. He could have protected himself better...

Has this also happened to you? On the plane? On the train? In a restaurant? Or even in a conference or seminar? Do you care? If you do, what about clipping a "privacy screen" onto your laptop display? Such a privacy screen - technically just a polarisation filter - blocks any view from the side while you still have the full picture (assuming you sit in front of your laptop!). A large variety of privacy screens are available through the CERN stores. Just make a "Material Request" on EDH, click on the "Distrelec" punch-out catalogue and search for "privacy filter". Make sure that you get the proper size. With it, you will feel more comfortable when working e.g. on the tram, on the train, in the restaurant… or on the plane!

So how much is your privacy worth? If you happen to deal regularly with confidential documents and travel a lot, why not invest a few francs in a privacy screen? Your next flight home for Christmas might already be booked! Also note that the upcoming CERN data protection policy will require all of us to respect confidentiality when handling sensitive documents like calls for tenders, MARS forms, personal files…

P.S. Please also note that many conference rooms and some control rooms are equipped with video conferencing cameras. You might be watched when working on your laptop. And it can be quite embarrassing if you are caught on camera when picking your nose or browsing some non-work related web pages. In order to make you aware of this, the CERN Video Conference Support Team is now installing "On Air" signs in all conference rooms.

Check out our website: (**security.web.cern.ch**) for further information, answers to your questions and help, or e-mail **Computer.Security@cern.ch.**

If you want to learn more about computer security incidents and issues at CERN, just follow our Monthly Report.

Stefan Lueders, Computer Security Team

OFFICIAL HOLIDAYS IN 2015 AND END-OF-YEAR CLOSURE 2015/2016

Official holidays in 2015 and end-of-year closure 2015/2016 (Application of Articles R II 4.38 and R II 4.39 of the Staff Regulations).

Official holidays in 2015 (in addition to the special leave during the annual closure):

- Thursday, 1 January (New Year)
- Friday, 3 April (Good Friday)
- Monday, 6 April (Easter Monday)
- Friday, 1 May
- Thursday, 14 May (Ascension day)
- Monday, 25 May (Whit Monday)
- Thursday, 10 September ("Jeûne genevois")
- Thursday, 24 December Christmas Eve)
- Friday, 25 December (Christmas)
- Thursday, 31 December (New Year's Eve)

Annual closure of the site of the Organization during the Christmas holidays and special leave granted by the Director-General:

The Laboratory will be closed from Saturday, 19 December 2015 to Sunday, 3 January 2016 inclusive (without deduction of annual leave). The first working day in the New Year will be Monday, 4 January 2016.

Human Resources Department
Tel. 73903/79257

EXTENSION OF THE PRE-RETIREMENT PROGRAMMES

Following a recommendation by the Standing Concertation Committee at its meeting on 27 November 2014 and approval by the Director-General, please note that:

- the Progressive Retirement Programme has been extended by one year, from 1 April 2015 until 31 March 2016;
- the Scheme of Part-Time Work as a Pre- retirement Measure has also been extended by one year, from 1 January 2015 until 31 December 2015.

Further information is available at the following sites:

https://admin-eguide.web.cern.ch/node/447
https://admin-eguide.web.cern.ch/node/484

Human Resources Department
Tel. 79257 / 73903

END-OF-YEAR CLOSURE 2014/2015

As announced in Bulletin 6-7/2014, the Laboratory will be closed from Saturday, 20 December 2014 to Sunday 4 January 2015 inclusive.

This period consists of:

- 4 days official holiday, i.e. 24, 25 and 31 December 2014 and 1st January 2015;
- 6 days special paid leave in accordance with Article R II 4.38 of the Staff Regulations, i.e.22, 23, 26, 29, 30 December 2014, and 2 January 2015;
- 3 Saturdays, i.e. 20, 27 December 2014 and 3 January 2015 and 3 Sundays, i.e. 21, 28 December 2014 and 4 January 2015.

The first working day in the new year will be Monday, 5 January 2015.

Further information is available from department secretariats, specifically concerning the conditions applicable to members of the personnel who are required to work during this period.

HR Department
Tel. 73903/79257

LUIGI MAZZONE (1926-2014)

Luigi Mazzone, one of the first engineers recruited by CERN, a very good friend and a dynamic and cheerful colleague, left us peacefully on 17 October.

Born in Cairo in 1926 to Italian parents, Luigi grew up in the multi-cultural environment that was a distinctive feature of Egypt in those years, and he often liked to reminisce about it when talking to friends. Back in Italy during the war, he went to secondary school in Sienna and then studied civil engineering, first at the University of Rome and then in Pisa, where he graduated in 1951.

In 1954, while working in Rome, Luigi was selected to join the group of scientists, engineers and technicians who were moving to Geneva from all over Europe to build CERN and its accelerators even before the official creation of the Laboratory. At CERN, he joined Peter Preiswerk's group, which was responsible for the planning and construction of buildings and for setting up the new Laboratory's services and infrastructure. He spent several years on this activity, demonstrating his professional competence, ingenuity and enthusiasm.

When the Proton Synchrotron became operational, Luigi developed a special interest in the technique of liquid hydrogen targets, which were an important component of many high-energy experiments, and more generally in all aspects of cryogenics. Among the many targets that he designed and built, the most impressive was the target built for the NA4 experiment in the late 1970s. This target, 40 metres long, was located along the axis of a large number of magnetised iron toroids and could be filled with either liquid hydrogen or deuterium. This target was unique at the time, and probably still is today, demonstrating the very high level of expertise that Luigi had achieved in this field.

In the years that followed, Luigi was responsible for the gas purification systems of the LEP detectors and for the purification of the liquid argon used by the ICARUS experiment. The argon purity required by ICARUS was a real technical challenge, which Luigi overcame successfully.

Even after his retirement, Luigi devoted a lot of his time to teaching cryogenics theory and techniques in the CERN Cryolab. Transferring his knowledge was for him a duty and a pleasure. His courses were much attended and appreciated.

Luigi Mazzone was a friendly and charming person, always ready to help and always offering enriching discussions and useful suggestions. While remembering this dear colleague and friend, we express all our sympathy to his wife, Beatrice, his sons, Roberto and Sergio, and to his grandchildren.

His friends and former colleague

SERVICES AVAILABILITY DURING THE CERN ANNUAL CLOSURE CLOSURE 2014/1015

Please note that the Service Desk will be closed, however in case of urgent requests, you can call/contact (+41 22 76) 77777. Calls will be redirected to the relevant support groups.

General Services

As always, like the security service, the emergency and fire service remain operational 24/7 and reachable via 74444.

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

Services that do not depend on a continuous human presence will remain available offering a reduced level of support during this period. In general, the response time to normal problems will be a half day (no guarantee), 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 Services Portal.

Please also note that the heating of the Meyrin and Prévessin' sites will be switched into a low mode. This reduced level will lead to a slight drop in temperature, in order to gain 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. However, please note:

- Experts should be reachable to start investigations on the following services within about half a day except around Christmas Eve and Christmas Day (24 and 25 December) and New Year's Eve and New Year's Day (31 December and 1 January) – Databases(*), Linux, lxplus, lxbatch, Mail, Printing, Network & Telecoms, Vidyo, Windows & Windows Terminal Services, Web Services, Oracle web hosting (Apex), Java web hosting, Cloud Infrastructure, activation of accounts, resetting passwords, EOS, AFS, CDS, Castor, Indico, Inspire, TWiki, SVN, GIT, issue tracking, Configuration Management Service, JIRA, CVMFS, Dashboard Monitoring Service, CERN Grid Services and the room booking system. Incidents will be listed on the CERN Service Status for Computing.
- All network and telecom services will run as usual, the first-line support will operate normally, but other changes requiring human intervention will not be possible.
- The backup service will remain operational, but backups cannot be guaranteed and file restores may not be possible.
- For the Castor service, damaged tapes will not be processed.

(*) Availability, backup and restore limited by the availability of other services.

Opening hours of the Telecom Lab - Lab Telecom (GSM and SIM Support)

December 22-23 : 10h00-12h00 ; December 24-25 : closed ; December 26 : 10h00-12h00 ; December 27-28 : closed ; December 29-30 : 10h00-12h00 ; December 31 : closed ; January 1 : closed ; January 2 : 10h00-12h00.

Please note that the operator service will be available and can be reached at 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 70500 as usual.

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

GS & IT Departments

MAIL DELIVERY | 19 DECEMBER

Due to the annual closure of CERN, no mail will be distributed on Friday, 19 December but mail will still be collected in the morning. Nevertheless, it will be possible for you to bring outgoing mail to building 555-R-002 until 12 noon.

Mail Office

NEW TIMETABLE FOR THE CERN SHUTTLE SERVICE 2015

Official holidays in 2015 and end-of-year closure 2015/2016 (Application of Articles R II 4.38 and R II 4.39 of the Staff Regulations).

Due to the reduction of operational budgets, please note that as from 5 January 2015:

- Circuit 1 (Meyrin) will not run during lunch;
- Circuit 2 (Prévessin) will run two more times each day;
- Circuit 6 will no longer run.

For more information: http://cern.ch/ShuttleService.

Departmental Administrative Office

TELEPHONE SWITCHBOARD CLOSURE | 19 DECEMBER

Exceptionally, the telephone switchboard will close at 4 p.m. on Friday, 19 December, instead of the usual time of 6 p.m., to allow time for closing all systems properly before the annual closure.

Therefore, switchboard operator assistance to transfer calls from/to external lines will stop. All other phone services will run as usual.

ANNUAL CLOSURE OF THE CERN RESTAURANTS

On Friday, 19 December 2014:

- Restaurant 1 will close at 4 p.m. and the newspaper kiosk at 2.30 p.m. The 'Grab & Go' stand will not open at all that day.
- Restaurant 2 and the snack-bars in Buildings 13, 40 and 30 will close at 3 p.m. and the snack-bars in Buildings 6 and 54 at 11 a.m.
- Restaurant 3 will close at 4 p.m. and the coffee bars in Buildings 864 and 865 at noon.

All outlets will open again at the usual times on Monday, 5 January 2015.

CERN SCHOOL OF COMPUTING | THEMATIC CSC | 18-23 MAY, 2015

tCSC2015 continues the concept trialled over the last two years. It aims to complement the existing portfolio of CSC events: the traditional main summer school, organised since 1970, the inverted CSCs (iCSCs) organised since 2005, and the special schools, like that organised in 2006 in Bombay.

Shorter, smaller, focused are the three distinguishing features of the "thematic CSC" (tCSC). But, though different from the main CSCs, the tCSCs maintain the same guiding principles:

1. Academic dimension on an advanced topic
2. Theory and practice
3. Networking and socialisation.

The third thematic CSC will take place in Split, Croatia, from 18 to 23 May 2015.

All applicants are welcome, including former and future CSC participants in the main summer school.

The theme is "Efficient, Parallel Programming and I/O", covering:

1. **Programming for concurrency**: modern and performing C++, expressing parallelism pragmatically, resource protection and thread safety, strategies to obtain peak performance with large-scale application

2. **Concepts for efficient computing:** data-oriented design, future technologies overview

3. **Structuring data for efficient I/O:** ways to store data, preserving data, key Ingredients to achieve effective I/O

Applications will be accepted until 31 January 2015.

See also general and practical information. More information is available on **http://cern.ch/csc**

Alberto Pace, CSC Director

CERN BULLETIN PUBLICATION SCHEDULE FOR 2015

The table below lists the 2015 publication dates for the CERN Bulletin and the corresponding deadlines for the submission of announcements. Please note that all announcements must be submitted by 12 noon on Tuesdays at the latest.

Bulletin No. (corresponding to the week number)	Submission deadline for announcements (before 12 noon)	Publication of Bulletin (web version)
4-5	Tuesday 13 January	Friday 16 January
6-7	Tuesday 26 January	Friday 30 January
8-9	Tuesday 10 February	Friday 13 February
10-11	Tuesday 24 February	Friday 27 February
12-13	Tuesday 10 March	Friday 13 March
14-15	Tuesday 24 March	Friday 27 March
16-17	Tuesday 7 April	MONDAY 13 April
18-19	Tuesday 21 April	Friday 24 April
20-21	Tuesday 5 May	Friday 8 May
22-23	Tuesday 19 May	Friday 22 May
24-25	Tuesday 2 June	Friday 5 June
26-27	Tuesday 16 June	Friday 19 June
28-29	Tuesday 30 June	Friday 3 July
30-31	Tuesday 14 July	Friday 17 July
32-33	Tuesday 28 July	Friday 31 July
34-35-36	Tuesday 11 August	Friday 14 August
37-38	Tuesday 1 September	Friday 4 September
39-40	Tuesday 15 September	Friday 18 September
41-42	Tuesday 29 September	Friday 2 October
43-44	Tuesday 13 October	Friday 16 October
45-46	Tuesday 27 October	Friday 30 October
47-48	Tuesday 10 November	Friday 13 November
49-50	Tuesday 24 November	Friday 27 November
51-52-53	Tuesday 8 December	Friday 11 December

If you wish to publish a news article or an item in the Announcements, Events or Official News sections, please contact: Bulletin-Editors@cern.ch

If you wish to publish an announcement in the Staff Association section, please contact: Staff.Bulletin@cern.ch

The distribution of the printed version depends upon external services. To ensure you remain up-to-date with current events, subscribe to the Bulletin e-newsletter.