CERN Bulletin

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THE SUCCESSFUL COMPLETION OF LS1, CONSOLIDATION AND PREPARATIONS FOR THE FUTURE

For CERN's Technology (TE) Department, success in LS1 is more important than finishing. In other words, the aim is to reach the finish line having maintained the highest standards of safety, quality and performance. Other challenges need to be faced too, before, during and after LS1, and the Department always approaches them with optimism. The new Department Head tells us how his 750 colleagues work to keep the Laboratory at the cutting edge of high-energy physics technology.

José Miguel Jiménez.

"We can only grow once we've stabilised our base." The message presented by José Miguel Jiménez, who stepped into the role of TE Department Head in January 2014, is clear, as are his priorities going forward: "The Technology Department needs to be consolidated in terms of both its personnel and its assembly and test infrastructures, some of which are unique."

The TE Department is tasked with providing the necessary technologies for the maintenance of existing infrastructures, but it also has to meet challenges that arise in

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A MID-TERM REPORT FOR LS1

As the LHC's first long shutdown, LS1, enters its second calendar year, it's a good time for a mid-term report on how things are progressing.

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A word from the DG

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A MID-TERM REPORT FOR LS1

Towards the end of last year, I had the pleasure to go down to the LHC tunnel to witness the closure of the first of the machine's sectors to be completed. As I write, three sectors are now closed up, with a fourth not far behind. These are important milestones, and you can follow progress in detail in the regular LS1 reports in the *Bulletin*. They show that we're on schedule for physics to resume in about a year from now, but more than that, they are an important reminder of the LS1 motto: safety, quality, schedule.

It is fantastic news that we are on schedule, and testimony to the rigour that went into the detailed and complex planning of all the work that had to be undertaken in LS1. But more important than the schedule is the fact that we've carried out the work safely and that the quality of the work underground and throughout the accelerator chain is first class, as quality assurance tests are showing. That in turn is testimony to the calibre of the CERN personnel working alongside teams from Greece, Pakistan, Poland and, earlier in the process, JINR Dubna. My thanks go to them.

As we enter 2014, what does the restart schedule look like? Starting with the injector chain, access systems will start to be recommissioned as of next month, with powering beginning in April and beam tests starting in late spring and early summer for the Proton Synchrotron complex. Moving through the accelerator chain, the SPS should be ready for physics to resume in October.

As for the LHC, with pressure tests now successfully under way, we will soon be starting the cool-down, beginning with sector 6-7 in May. By the end of October, the whole LHC ring is scheduled to be at its operating temperature of 1.9 K. Power testing should be complete by the end of the year, allowing an early start for LHC physics in 2015. So the mid-term report is a good one: safe, carried out to the highest quality and so far right on schedule. There's a long way to go, however, and much could still happen, but we can be satisfied with progress to date.

Rolf Heuer

THE SUCCESSFUL COMPLETION OF LS1, CONSOLIDATION AND PREPARATIONS FOR THE FUTURE

(Continued from page 1)

ongoing projects and studies. At the moment, the Department has to plan around the LHC's rhythm. "The LHC runs for around two and a half years before each long shutdown," he explains. "We have to evaluate the allocation of resources, both financial and human, taking into account this 'heartbeat', which is completely different from the annual shutdowns for the former LEP machine. Optimising resources is a fundamental issue because, without it, we would risk penalising all the projects that work on a less restrictive timescale."

It should be remembered that, in addition to paying special attention to the LHC and its injectors, the Department looks to the future too. "We need to be able to free up resources, for example to develop solutions to problems identified in the various machines today to ensure the best performance possible in the years to come," Jiménez adds. Indeed, particularly at the LHC, where the particles reach a very high energy, dynamic effects caused by the beams are starting to emerge and the electronics are struggling to withstand the radiation. The development of innovative materials and processes is therefore becoming crucial in order to limit the damage to the infrastructures. "We are working to develop our technologies to control these instabilities," he underlines. "We will then have to construct and test the prototypes. This process takes around three years."

The TE Department's highly specialised and motivated personnel are currently involved in several projects that will, in the medium-term, have a significant impact on the operation of the machines. Some of these projects are established in an international context by way of collaboration with other laboratories, while others simply form part of the Organization's mission of technology transfer to the Member States. "We have to be able to guarantee this technological excellence and provide this service. The hope is to achieve technological breakthroughs that would also be beneficial outside high-energy physics," Jiménez adds.

According to the Department Head, the motivation to face all the complex challenges of a Laboratory that aims always to be at the forefront of technology comes from "pride in a job well done". José Miguel Jiménez leaves us with one final thought: "I would like to end this interview by praising the professionalism, commitment and collaborative spirit of all members of the personnel, associates and industrial partners who work for and in collaboration with the Department. It is remarkable to see such team spirit."

Antonella Del Rosso

LS1 REPORT: THE CLOUDS ARE LIFTING

To combat the problem of electron clouds, which perturbate the environment of the particle beams in our accelerators, the Vacuum team have turned to amorphous carbon. This material is being applied to the interior of 16 magnets in the SPS during LS1 and will help prevent the formation of the secondary particles which are responsible for these clouds.

This photo shows the familiar coils of an SPS dipole magnet. The vacuum chamber is the metallic rectangular part in the centre. The small wheeled device you can see in the vacuum chamber carries the hollow cathodes along the length of the chamber.

When a particle beam circulates at high energy in a vacuum chamber, it unavoidably generates secondary particles. These include electrons produced by the ionisation of residual molecules in the vacuum or indirectly generated by synchrotron radiation. When these electrons hit the surface of the vacuum chamber, they produce other electrons which, through an avalanche-like process, result in a cloud of particles.

And electron clouds are the source of numerous inconveniences:

1. They release gas. And when gas is released, pressure increases, as does radiation, and this has an impact on infrastructures, resulting in background noise.

2. They are a source of energy, or to put it another way, of heat, which results in excess consumption of liquid helium for cooling.

3. They have a negative charge, so they interact with the beam, which has a positive charge. This translates into oscillation and expansion of the particle bunches, increasing the probability of quenches in the superconducting magnets, as well as reducing luminosity.

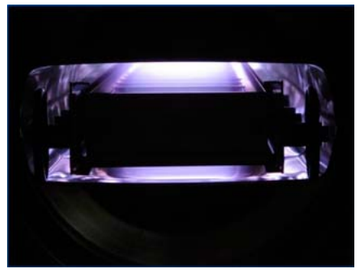
So how can this problem be resolved? In the LHC, the method currently used is the conditioning or "scrubbing" of the beam tube. "When the vacuum chamber is bombarded by electrons, this produces the avalanche phenomenon," says José Miguel Jiménez, new Head of the TE Department. "However, if the bombardment is sufficiently intense, it gradually induces the opposite effect, i.e. it inhibits the avalanche. But this might not be very efficient at very high energies."

So in order to adapt to the energies anticipated in the accelerator complex from 2015 onwards, the Vacuum, Surfaces and Coatings (TE-VSC) Group have been working on another solution: amorphous carbon. "The avalanche phenomenon is possible because the surface of the vacuum chambers allows it to happen," explains José Miguel Jiménez. "Metallic materials have a maximum secondary emission coefficient of between 1.9 and 2.1, which means that every particle hitting these materials creates up to 1.9 to 2.1 new ones. Amorphous carbon, however, has a coefficient of less than 1, which makes the avalanche phenomenon impossible."

The problem of electron clouds could be resolved for good if the inner walls of the vacuum chambers are coated with a fine layer of amorphous carbon. In 2013, 16 magnets from the SPS were therefore "repainted" on the inside. "The work was not without its difficulties," admits José Miguel Jiménez. "Although this technique is widely used in industry, it has never been used in long vacuum chambers like those in the SPS."

The VSC Group therefore had to develop a special tool, called a hollow cathode, which is inserted into the vacuum chamber and then moves along the 7-metre length of each module, coating it with carbon. "During the operation," José Miguel Jiménez adds, "gases which are harmful for the coating are absorbed by filaments on each side of the vacuum chamber, which "pump" them out as the operation progresses."

The 16 treated magnets are now ready for installation in the SPS, where time will tell how resistant this coating is. If it gives satisfactory results, the technique could then be adapted for certain magnets in the LHC.



The light is produced by the argon plasma used when spraying the amorphous carbon. This plasma is created in the hollow cathodes, which are negatively polarised in relation to the vacuum chamber.

Meanwhile, elsewhere...

At the LHC, the repair of the electrical feedbox (DFBA) at Point 6 (left), currently taking place on the surface, is almost complete. The module should soon be lowered back in to the tunnel to be reconnected, an operation which is likely to be as delicate as its extraction.

At Point 2, the reinstallation of the kicker magnets is on track: four of the eight have already been reinstalled.

In Sector 6-7, where two weeks ago the first pressure tests successfully took place, the cryogenic teams are currently preparing the machine for new ELQA tests.

So far, six sectors have been consolidated (5-6, 6-7, 7-8, 1-2, 2-3 and 3-4) and three have already been closed (5-6, 6-7 and 7-8). The closure of a fourth sector (8-1) is currently in progress, a process which will conclude with vacuum testing.

Anaïs Schaeffer

CMS PREPARES FOR NEW CHALLENGES

One of the world's largest physics experiments has just had a change in leadership. This is a chance for the collaboration to take stock of the tremendous work done for LS1 and to prepare for the challenges that lie ahead.

From left to right: Kerstin Borras, Tiziano Camporesi and Paris Sphicas.

"The keyword is teamwork. That's the only way you can effectively manage a large number of extremely talented and motivated people," says Tiziano Camporesi who took the reins of the CMS collaboration at the beginning of the year. The recipe might seem easier on paper than in practice. However, given his 28 years at CERN, two of which he spent as the head of the DELPHI collaboration, Camporesi has extensive experience in managing large scientific collaborations and success in this respect is well within his reach: "I have learned many lessons from the past and I believe that building consensus is instrumental to successful leadership."

The CMS collaboration has more than 2,500 participating members from 182 institutions distributed all over the planet. About 30% of the contributions come from the US. New CMS Deputy Spokesperson Paris Sphicas, currently a senior CERN staff physicist and professor at the University of Athens, was working in the US when, in his words, "US physicists started to look east in 1994." He continues: "Today, CMS is a truly global endeavour. Despite the complexity of the challenges, we have performed extremely well. Now the challenge is to perform at least as well as we have done so far!"

During LS1, the CMS experiment has gone through quite a major facelift. "Along with the scheduled repair work, we have improved the muon detection capability by adding new layers to the muon detectors in order to better cover a larger zone," explains Camporesi. "We have also redesigned our data acquisition system, the trigger system and the offline analysis structure."

Everything seems ready for the LHC restart scheduled in less than a year's time. "We already know what we should expect: the new data will be much more difficult to analyse because of the tougher environment characterised by higher energy, increased pile-up of events and multiplicity," says Kerstin Borras, senior scientist at the DESY laboratory in Germany and new CMS Deputy Spokesperson. "We will have to be much more efficient than we were in the first run. If new physics exists, we expect to be able to see interesting signals already in the first weeks of running."

Next January, the members of the CMS collaboration will be among the first scientists in the world to look at the most distant universe with a lens never used before. The excitement is tangible but so is the feeling that this is "just" a step towards further development. A large part of the collaboration is already working on the major upgrades that will redesign the CMS detector in preparation for the second phase of the LHC (HL-LHC). "We rely on young people to build the future of the collaboration," concludes Camporesi. "The very talented young collaborators are our roots. We, the top Management, are replaceable, but they are not."

Please watch the video interview with the CMS Management by Achintya Rao:

Antonella Del Rosso

PHYSICS AND MEDICINE: READY FOR A NEW RENDEZ-VOUS

The second ICTR-PHE conference is on the starting blocks. From 10 to 14 February, physicists, medical doctors and life science experts will meet again in Geneva to discuss how to improve the use of innovative techniques in the fight against cancer.

Over 400 participants from Europe, the US and Asia will gather at the Geneva International Conference Centre to attend the 2014 edition of the joint ICTR (International Conference on Transnational Research in Radiation Oncology) and PHE (Physics for Health in Europe) conference. "For this second conference we will reproduce the successful model tested in 2012 with just a few tweaks, suggested by the participants themselves," says Manjit Dosanjh, CERN's Advisor for Life Sciences and Chair of the conference together with radiation oncologist Jacques Bernier from Geneva's Genolier Clinic.

This second conference will feature more oral presentations on the themes proposed by PHE, including detectors, nuclear medicine and new technologies. "The medical doctors and biology experts who attended the first conference showed their appreciation and interest for the topics presented by the physics community," explains Dosanjh. "We decided to reduce the number of posters in the dedicated session and to give more visibility to these topics by including them in the normal programme of presentations. This balances the contributions from the different communities and gives more opportunities for young people to present their innovative ideas."

This year, the conference is also a bit shorter to facilitate the attendance of medical doctors who might be under the pressure of their commitments with patients. "We kept the scheme adopted last time with a day (the Wednesday) of overlap between the two communities. On Tuesday we will have the public talk "Physics is beautiful and useful" by Ugo Amaldi, " explains Dosanjh. "2014 also marks a round birthday for him, and I do hope to see many of you coming to celebrate with him on this occasion."

2014 is a year of anniversaries for the communities attending the ICTR-PHE conference, as it will be 60 years of CERN, 60 years of particle beam therapy (the first patient was treated in Berkeley in 1954), and 20 years since Japanese doctors used a beam of carbon ions to hit cancerous cells for the first time. "This is a good time for us to take stock of the work done and move to the next phase: the clinical trials," comments Manjit Dosanjh. "A panel discussion is planned on the last day of the conference to address this question. This and the status reports from the various hadron-therapy centres will help us gather an updated picture of the current situation. Our hope is to contribute to the fight against cancer by boosting research, improving technologies and enhancing collaboration."

Please watch the video featuring the highlights from the 2012 edition of the ICTR-PHE conference:

Antonella Del Rosso

THE HUNTING SEASON'S OVER

Hundreds of Internet users from across the globe have been scouring the Computer Centre for LEGO figurines in recent weeks. The time has come to announce the results…

We've received nearly 5,000 screen-shots, the precious trophies gleaned from hours of virtual scavenging through the CERN Computing Centre, and we're pleased to see our hunt raised so much interest.

Unfortunately, rules being rules, we have to choose the two winners by drawing lots, so prizes will be winging their way to…

- Sarah Charley (CERN)
- Stefan Hayes

We kindly thank everyone who took part in the hunt with so much gusto and hope you all had as much fun as we did!

You can discover all the figurines here: **http://lego-scavenger-hunt.web.cern.ch/**

The CERN Bulletin team

HACKATHON: CALL FOR APPLICATIONS
THE SEARCH FOR CINEMA-LOVING SCIENTISTS IS ON

CinéGlobe, the International Film Festival at CERN, is organising the "Story Matter" Hackathon in partnership with the Tribeca Film Institute, *Festival Tous Écrans* and the Lift Conference.

The Hackathon is an international workshop devoted to science and interactive storytelling, organised as part of the CinéGlobe International Film Festival.

The initiative aims to create stories from science and science from stories. From 15 to 19 March 2014 at the Globe of Science and Innovation, film-makers chosen for their artistic and storytelling skills will join forces with cutting-edge technology experts and field-leading scientists to discover and, in teams, create works of art based on the fusion of these three disciplines.

During the Hackathon, each team will be tasked with working together to explore interactive ways to tell stories. Their goal will be to create non-linear multimedia works which illuminate the hidden stories behind science using the latest results of scientific research. The projects will be informed by CERN's expertise, particularly in the fields of particle, nuclear and high-energy physics and on subjects such as the Standard Model, supersymmetry, grid computing or even exploring the role of cosmic rays in the formation of clouds.

Applications for the "*Story Matter*" Hackathon will be accepted until 17 February 2014, with the aim of forming five hybrid teams of scientists, specialists in new technology and content creators. So if you are passionate about science, like films and storytelling and want to take part in this new adventure, sign up for the Hackathon now at: **www.cineglobe.ch/hackathon**. Cinéglobe is also looking for volunteers to help with the organisation. If you are interested, please contact **volunteers@cineglobe.ch**

The Hackathon event is part of CinéGlobe, the International Film Festival at CERN, and marks the first partnership between the Festival and the Tribeca Film Institute (TFI), as well as being the first international and first science-focused event in the Tribeca Hackathon programme. The Lift Conference and the Festival Tous Écrans, *an international film, TV and transmedia festival in Geneva, are also lending their support to this event. A selection of works will be presented at the* Festival Tous Écrans *in November 2014.*

CinéGlobe Team

Behind the scenes of GS

SWEET DREAMS!

The CERN Hostel is located in the heart of the Meyrin site and provides the Organization's many users with a comfortable and peaceful place to stay. The services offered by the Hostel, which is managed by the GS-IS Group, have seen many changes over the years.

One of the comfortable rooms offered by the CERN Hostel.

The first CERN Hostel (Building 38) was built in 1982 in response to an increasing demand for accommodation, which until then had been met by a handful of converted bedrooms in Building 5 and, since 1974, by 81 additional bedrooms made available to CERN through an agreement with the Foyer Schumann in Saint-Genis-Pouilly. Let's not even mention the fact that the barracks now occupied by the CERN clubs used to be dormitories…

The Hostel was gradually extended, particularly in 1995 with the construction of Building 39, and then in 2007, when Building 41 was added, resulting in a total of 413 rooms (495 beds) today. In addition, a new agreement now gives users access to 151 low-cost rooms at the Foyer Schumann, and the CERN Hostel also manages 14 apartments in Meyrin and Grand-Saconnex, which are generally rented out for long stays.

The CERN Hostel aims to offer its customers a high-quality service at reasonable rates. "Since 2009, we have significantly improved the Hostel's services," says Véronique Sogno, Head of the Site Services Section (GS-IS-SIS). "Among other things, we have

The CERN Hostel's Reception team.

replaced the furniture and fittings in every room, renovated the bathrooms, refitted the communal kitchens, centralised the fire detection system... and we've actively encouraged the Foyer Schumann to review its level of service too."

In response to continually increasing demand, the Hostel implemented a state-of-the-art hotel software system in 2009 to ensure optimal management of reservations: "Before we acquired this tool, we processed all reservations by phone, fax or e-mail. It was impossible for us to get an overview of the occupancy rate in real time," recalls Bernard Goicoechea, CERN Hostel supervisor. "Now customers have access to a reservation system developed by the GS-AIS-EB team, which gives them immediate information on room availability." "On the service side, we have extended the opening hours of the Reception to 1 a.m., seven days a week," adds Véronique Sogno. "We offer a laundry service and three self-service launderettes. We've also added a breastfeeding area, in consultation with the CERN Medical Service."

With an average occupancy rate of more than 75% over the last six years, peaking at more than 95% during the summer when CERN welcomes many students (the average occupancy rate for a hotel in Geneva is around 60%), the CERN Hostel is doing great business. "From the receptionists and cleaners, to the head housekeeper and the maintenance and supplies managers... more than 50 people (on external contracts) work every day to maintain the high level of service offered by the CERN Hostel," concludes Bernard Goicoechea.

For more information about the CERN Hostel or to make a reservation, go to ***http://gs-dep.web.cern.ch/fr/CERN_Housing.***

Anaïs Schaeffer

Library

Knovel is a Web-based database integrating technical information with analytical and search tools. It is specifically aimed at the engineering community, offering validated content derived from the most trusted sources.

Knovel combines the functionalities of an e-book platform and a search engine querying a plurality of online databases. These functionalities are complemented by analytical tools that permit the extraction and manipulation of data from e-book content.

Knovel's tools - including its interactive tables and graphs - not only help users to find information hidden in complex graphs, equations and tables quickly, but also to analyse and manipulate data as easily as sorting a spreadsheet. Using either simple keywords or full Boolean queries, Knovel searches across different data sets to find the information engineers need, however deeply it may be buried.

For more information please visit **why.knovel.com** and the corresponding Youtube channel.

A trial period of Knovel for the whole of CERN will take place from 10 February until 14 March 2014. Every CERN IP number will have access to the resource. After the start of the trial, users will have also the possibility to register themselves from the tab "Welcome" on the top right of the homepage. Following registration they will be able to save their searches in the "My Folder" tab.

As usual, your feedback is most welcome! Please contact us by e-mail at **library.desk@cern.ch.**

CERN Library

Computer Security

GETTING A BETTER IMAGE FROM THE ORGANIZATION

Do you make regular presentations about CERN or CERN's activities to the public? Do you manage public webpages hosted by CERN? Do you edit or contribute to CERN publications? Besides plenty of text, every good presentation, webpage or publication is usually spruced up with visual content: graphics, photos or even videos. But have you ever thought about whether you actually have the proper rights to use such imagery?

Just recently, a stock photo agency contacted CERN regarding an image published on a web page currently under CERN's responsibility. According to them, this image had been used without the proper rights and thus violated their copyright. As the web page is from 2007 and as is part of an EU funded project which has since ended, it is hard to check the facts. The image has since been removed to comply with the photo agency's conditions. We should take all the possible steps to avoid receiving similar letters, and to uphold the good image of the Organization!

Whether you are a presenter, webmaster or editor, please ensure you hold the proper rights when using photos, graphics, videos and music in your presentations, webpages or publications… Check whether the imagery is published under a Creative Commons license (see, for example, Wikimedia) or consider paying a royalty fee to a photo repository such as BigStockPhoto.com or iStockPhoto.com. It is just an investment of a few francs to be on the safe side. If you are really keen on using a particular photo or graphic, contact its author/owner and ask for permission (and keep written proof!). And, of course, take your time to browse the CERN Document Server (CDS) for footage from CERN. If you don't find what you are looking for, why not roam around the site, shoot the photo yourself and make it available on CDS?

Also remember that the violation of image copyright is only one aspect. Please respect the copyrights arising from software applications and programs as well as when downloading or sharing videos and music.

Check out our website 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**.

Computer Security Team

Seminars

FRIDAY FEBRUARY 07, 2014

- **11:00** Detector Seminar **Micro-channel plate photomultiplier tubes for fast photon detection** Salle Anderson
- **14:00** Particle and Astro-Particle Physics Seminars **High multiplicity QCD at NLO** TH Conference Room

TUESDAY FEBRUARY 11, 2014

- **14:00** TH String Theory Seminar **Second Quantization of Mathieu Moonshine** TH Conference Room
- **15:00** ROOT **Class ROOT** Lecture Room C

WEDNESDAY FEBRUARY 12, 2014

- **11:30** TH Cosmo Coffee **TBA** TH common room
- **15:00** ROOT **Class ROOT** Lecture Room C

Ombuds' Corner

A CHANGE IN YOUR CAREER? DRIVE IT YOURSELF!

Contracts come to an end, projects move from one phase to another, hierarchy changes… in the 21st century, things have the tendency to move very quickly in the work environment. Although no change comes without a large dose of stress, the key is to see it as an opportunity for professional growth – keeping in mind that in every end there is a new beginning.

Life is full of changes, it's inevitable. However, rather than just going with the flow, it is good to see change coming and drive the transition ourselves. Whether a change is imposed or it is something we want, it comes with a lot of unknowns that are more easily overcome if we can anticipate them and allow ourselves time to prepare for the challenges ahead.

As nothing can remain the same forever, it is best not to bury our heads in the sand but instead to approach change proactively. Hoping for miracles or pretending change will not happen are usually good recipes for disaster. Conversely, by seeing change in a positive light, we are in a better position to take charge of our own lives, and drive the transition in a way that suits us best.

This is not to say that change comes without pain. It is important to acknowledge our own feelings, especially if they involve anger or disappointment, but we should strive not to let ourselves be overtaken by these emotions.

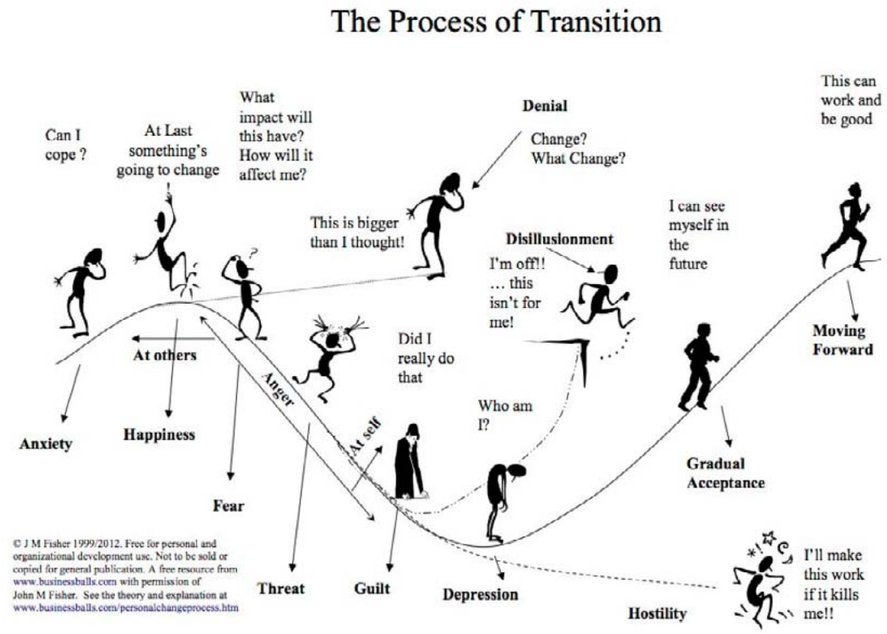
We may not always feel ready for a change, but if we know that it is imminent, we need to come to terms with it and prepare ourselves to move on. This preparation is important even when the change is voluntary and we perceive it as a positive step.

In either case, we need to be able to 'let go' of the familiar, handing over responsibility to our successors in a thorough and transparent manner, without withholding information, and accepting that they will build on past achievements in their own way.

As colleagues, we all play a crucial part in helping those who are facing a change to achieve a smooth transition. It is important that they are able to complete their current responsibilities, leaving the old job without feeling pushed aside or left with nothing to do during their remaining time. While at the same time, it's important to leave them enough space to equip themselves for the new challenges ahead. Similarly, when welcoming new colleagues into our midst, we should encourage them to bring fresh ideas or ways of working to our projects, and allow them space to make their own mark.

Change is always challenging, as it requires stepping out of our comfort zone into an unfamiliar situation. It implies finding the right degree of newness that is stimulating without tipping over into a panic zone where everything seems negative and out of our control. The key lies in keeping our balance, giving ourselves the time to adjust to the change and not hesitating to ask for support, if needed.

Sudeshna Datta-Cockerill



Official news

SUBSIDISED ENERGY PRICES IN FRANCE: TPN – *TARIF DE PREMIÈRE NÉCESSITÉ* ("BASIC NEEDS" ELECTRICITY PRICE) AND TSS – *TARIF SPÉCIAL DE SOLIDARITÉ* (SPECIAL SOLIDARITY PRICE FOR NATURAL GAS)

Some members of the CERN personnel residing in France have received a letter informing them that they are eligible for the "TPN" and/or "TSS" subsidised energy prices.

The Organization has contacted the French authorities and it seems that these subsidised energy prices, for which the eligibility criteria have recently been modified, **are not applicable to members of the CERN personnel.**

The Organization therefore asks the members of the personnel concerned to call the freephone number (*numéro vert*)* given on the letter that they received to **say that they do not wish to benefit from these subsidised energy prices.**

On this matter, the Organization would like to recall that most social benefits and subsidies are granted only when the financial means of the individual concerned are below fixed ceilings. This is generally not the case for members of the CERN personnel.

For this reason, and notably in line with the Code of Conduct, the Organization expects the members of its personnel to refrain from unduly seeking to obtain such social benefits or subsidies and, where necessary, to take the necessary steps to relinquish them.

*From France: 0 800 333 123 for the TPN and 0 800 333 124 for the TSS.

HR Department
Tel. 79257/ 73903

EXTENSION OF THE PRE-RETIREMENT PROGRAMMES

Following a recommendation by the Standing Concertation Commitee at its meeting on 5 December 2013 and approval by the Director-General, please note that:

- the Progressive Retirement Programme has been extended by one year, from 1 April 2014 until 31 March 2015;
- the Scheme of Part-Time Work as a Pre-retirement Measure has also been extended by one year, from 1 January 2014 until 31 December 2014.

Further information is available from the following sites:
https://cern.ch/admin-eguide/retraite/proc_prp_fr.asp
https://cern.ch/admin-eguide/retraite/proc_pTp_fr.asp

Human Resources Department
Tel. 79257/ 73903

OFFICIAL HOLIDAYS IN 2014 AND END-OF-YEAR CLOSURE 2014/2015

(Pursuant to Articles R II 4.38 and R II 4.39 of the Staff Regulations)

Official holidays in 2014 (in addition to special leave during the annual closure):

- Wednesday, 1st January (New Year)
- Friday, 18th April (Good Friday)
- Monday, 21st April (Easter Monday)
- Thursday, 1st May
- Thursday, 29th May (Ascension day)
- Monday, 9th June (Whit Monday)
- Thursday, 11th September ("Jeûne genevois")
- Wednesday, 24th December (Christmas Eve)
- Thursday, 25th December (Christmas)
- Wednesday, 31st December (New Year's Eve)

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

The Laboratory will be closed from Saturday, 20th December 2014 to Sunday, 4th January 2015 inclusive (without deduction of annual leave). The first working day in the New Year will be Monday, 5th January 2015.

Human Resources Department
Tel. 73903/79257

Training

SAFETY TRAINING: PLACES AVAILABLE IN FEBRUARY 2014

There are places available in the forthcoming Safety courses. For updates and registrations, please refer to the Safety Training Catalogue

February 2014 (alphabetical order)

Fire Extinguisher
26-FEB-14, 10.30 – 12.00, in French

First Aider - Level 1 – Initial
20-FEB-14, 8.30 – 17.30, in French

First Aider - Refresher
13-FEB-14, 8.30 – 12.30, in English
13-FEB-14, 13.30 – 17.30, in English

Habilitation électrique - Electrician Low Voltage – Initial
10-FEB-14 to 12-FEB-14, 9.00 – 17.30, in French

Habilitation électrique - Electrician Low Voltage – Refresher
10-FEB-14 to 11-FEB-14, 9.00 – 17.30 and 9.00 – 12.30, in English (1.5 day)

Habilitation électrique - Electrician Low Voltage – Refresher
27-FEB-14 to 28-FEB-14, 9.00 – 17.30, in French (1.5 day)

Habilitation électrique - Electrician Low and High Voltage – Refresher
13-FEB-14 to 14-FEB-14, 9.00 – 17.30, in English

Habilitation électrique – Non-electrician – Initial
13-FEB-14 to 14-FEB-14, 9.00 – 17.30 and 9.00 – 12.30, in French (1.5 day)

Habilitation électrique – Non-electrician – Refresher
11-FEB-14 au 12-FEB-14, 13.30 – 17.30 and 9.00 – 12.30, in English (1 day)

Habilitation électrique – Non-electrician – Refresher
26-FEB-14, 9.00 – 17.30, in French

Mobile Elevated Working Platform - Driving – Initial
24-FEB-14 au 25-FEB-14, 8.30 – 17.30, in French (supports de cours en anglais pour les non-francophones)

Mobile Elevated Working Platform - Driving – Refresher
26-FEB-14, 8.30 – 17.30, in French (supports de cours en anglais pour les non-francophones)

Noise – Risks
13-FEB-14, 10.00 – 12.30, in French

Radiation Protection - Controlled Area - CERN Employees and Associates
11-FEB-14, 9.00 – 17.00, in English
19-FEB-14, 9.00 – 17.00, in English
24-FEB-14, 9.00 – 17.00, in French
27-FEB-14, 9.00 – 17.00, in English

Self-Rescue Mask – Initial
03-FEB-14, 10.30 – 12.30, in French
03-FEB-14, 14.00 – 15.30, in English
10-FEB-14, 10.30 – 12.30, in French
10-FEB-14, 14.00 – 15.30, in English
17-FEB-14, 10.30 – 12.30, in French
17-FEB-14, 14.00 – 15.30, in English
24-FEB-14, 10.30 – 12.30, in French
24-FEB-14, 14.00 – 15.30, in English

Self-Rescue Mask – Refresher
11-FEB-14, 10.30 – 12.00, in French
13-FEB-14, 10.30 – 12.00, in English
18-FEB-14, 10.30 – 12.00, in French
20-FEB-14, 10.30 – 12.00, in English
25-FEB-14, 10.30 – 12.00, in French
27-FEB-14, 10.30 – 12.00, in English

Working at Heights - Using a harness
25-FEB-14, 9.00 – 17.30, in English

The Safety Training Team, HSE Unit

ENGLISH AND FRENCH COURSES

If one of your New Year's resolutions is to learn a language, there is no excuse anymore!

You can attend one of our English or French courses and you can practise the language with a tandem partner!

General and Professional French Courses
The next session will take place from **27 January to 4 April 2014.**
These courses are open to all persons working on the CERN site, and to their spouses.

Oral Expression
This course is aimed at students **with a good knowledge of French** who want to enhance their speaking skills.
Speaking activities will include discussions, meeting simulations, role-plays etc.
The next session will take place from **27 January to 4 April 2014.**

Writing professional documents in French
These courses are designed for non-French speakers with a **very good standard of spoken French.**
The next session will take place from **27 January to 4 April 2014.**

Cours d'anglais général et professionnel
La prochaine session se déroulera du **3 mars au 27 juin 2014.**
Ces cours s'adressent à toute personne travaillant au CERN ainsi qu'à leur conjoint.
Pour vous inscrire et voir tout le détail des cours proposés, consultez nos pages web : **http://cern.ch/Training.**

Oral Expression
The next session will take place **from 3 March to 27 June 2014.**
This course is intended for people with a good knowledge of English who want to enhance their speaking skills. There will be an average of 8 participants in a class.
Speaking activities will include discussions, meeting simulations, role-plays etc. depending on the needs of the students.

Writing Professional Documents in English – Administrative
Writing Professional Documents in English – Technical
The next session will take place from **3 March to 27 June 2014.**
These courses are designed for people with a good level of spoken English who wish to improve their writing skills. There will be an average of 8 participants in a class.

For registration and further information on the courses or the language tandem programme, please consult our web pages: ***http://hr-training.web.cern.ch/hr-training/*** *or contact Kerstin Fuhrmeister (70896 -* ***language.training@cern.ch****).*

Take note

POSTERS OF THE 2013 NOBEL PRIZE IN PHYSICS AVAILABLE FROM THE LIBRARY

The Royal Swedish Academy of Sciences produces three posters annually, each of which explains the motivation for the award of the Nobel prizes in Physics, Chemistry and Economics.

The files of the posters are available here: **http://www.kva.se/en/Prizes/Nobel-prizes/Nobel-Posters/**

The good news is that the CERN Library has got a stock of posters of the 2013 Nobel Prize in Physics. They are available free from the Library (52-1-052).

CERN Library

HOW TO FILL IN YOUR OHS-0-0-3 SAFETY FORM

The HSE Unit reminds all members of personnel that the OHS-0-0-3 Safety Form entitled "Identification of occupational risks" must be filled in on EDH at least once a year with their supervisor.

The form helps identify the occupational risks a person is exposed to in the course of his or her activities at CERN. In addition it provides information for the Medical Service database, which is used for personalized follow-up of employees.

All persons who have only filled in the "paper" version of the form with their supervisor in previous years are required to complete the online form on EDH.

Those who have already filled in the online OHS-0-0-3 form can find it on EDH or on their MARS form and clone it, verify it, update it if necessary and sign it.

More information can be found on the CERN Admin e-guide.

HSE Unit

ICTR-PHE PUBLIC TALK | PHYSICS IS BEAUTIFUL AND USEFUL BY UGO AMALDI | 11 FEBRUARY

In the framework of the International Conference on Translational Research in Radiation Oncology – Physics for Health in Europe (ICTR-PHE), which will take place at the Geneva International Conference Centre from 10 to 14 February 2014, the public is invited to attend an exceptional talk:

Physics is beautiful and useful
by Ugo Amaldi

Tuesday 11 February 2014, 6.30 p.m.
Geneva International Conference Centre
17, rue de Varembé, Geneva

The talk will be in English with simultaneous translation into French

Abstract: The year 2014 marks the 60th anniversary of CERN and of the first cancer treatment with protons done at Berkeley. This is no coincidence: indeed, the beauty of particle physics has always gone hand in hand with useful applications.

These "useful" activities follow from the technical developments in particle accelerators and radiation detectors that have brought about the discoveries of neutral currents (1973), of its mediator the Z boson (1984) and of the Higgs condensate (2012).

The beginning of 2014 is thus a good time to describe these "beautiful" physics results, together with their consequences in our description of the events that took place in the first millionth of a second of the Universe. The second part of the lecture will review CERN's contributions to cancer therapy and conclude with an overview of possible future developments.

This lecture is also an opportunity to celebrate the 80th birthday of Ugo Amaldi, who has been a major player in both the beautiful and the useful aspects of physics in his long and outstanding career.

Ugo Amaldi, biography

Ugo Amaldi has been working at CERN since the 70s as Senior Scientist. For twenty years, he has been studying, both experimentally and theoretically, the properties of protons and neutrinos and the unification of fundamental forces. He founded and directed for 13 years the DELPHI Collaboration, at CERN's LEP Accelerator. Between 1990 and 2006 he was Professor of Medical Physics in Milan. In the last thirty years more than one third of all Italian high school pupils have studied physics on his textbooks.

In 1992, Ugo Amaldi established TERA, the Italian Foundation for Hadrontherapy. He led the design effort of the Italian National Centre of Oncological Hadrontherapy (CNAO), which has been treating patients with protons and carbon ions since 2011. At present, he is working on the development of novel linear accelerator systems for tumour treatment.

Ugo Amaldi is Doctor honoris causa of the Universities of Lyon, Helsinki, Uppsala, Valencia, as well as Distinguished Affiliated Professor at Technische Universität München. Among many other acknowledgements and honours, he was awarded the Gold Medal for science and culture by the Italian President of the Republic, and was appointed Fellow of the European Physics Society.

FUTURE CIRCULAR COLLIDER STUDY (FCC) KICK-OFF MEETING | 12-15 FEBRUARY

The kick-off meeting of the international "Future Circular Collider Study" (FCC) will take place in Geneva from 12 to 15 February 2014 at the University of Geneva, Unimail site.

The programme and registration details can be found on the meeting's website.

This meeting is the starting point of the five-year international "Future Circular Collider Study" (FCC). The main emphasis of the conceptual design study will be on a hadron collider with a centre-of-mass energy of the order of 100 TeV in a new tunnel with a 80-100 km circumference for the purposes of studying physics at the highest energies. The study will also include a lepton collider, as a potential intermediate step towards realisation of the hadron facility. Options for e-p scenarios will also be considered. The main purpose of this meeting is to discuss the study topics and to prepare international collaborations.

The meeting is a public meeting with a registration deadline closing on **Friday 31 January 2014.**