



*Draft Minutes of the 90th Meeting of the ISOLDE Collaboration Committee
held on February 1st 2021*

Present: J. Cederkall, K. Flanagan, L. Fraile, H. Fynbo, L. Gaffney, G. Georgiev, S. Gilardoni, K. Johnston, A. Nannini, G. Neyens, J. Pakarinen, M. Pfützner, J.A. Rodriguez, L. Schweikhard, N. Severijns, E. Siesling, M. Venhart, J. Voltaire

Absent: N. Marginean, D. Naidoo, S. Siem

The meeting, held via Zoom due to Covid-19 travel restrictions, starts at 09:00 h

1. Introductory remarks

The ISCC chairperson, K. Flanagan, opens the meeting.

2. Approval of the Minutes of the last meeting of November 5th, 2020

The minutes from the previous meeting are approved.

3. Updates on TISD and Beam manipulation– S. Rothe

The new CERN Systems department, that was created by the recent CERN restructuring, is introduced. Part of the EN department has been transferred to the new Systems department so EN-STI-RBS has now become SY-STI-RBS.

S. Rothe briefly summarises the status of frontend 11 (FE11). Extended high voltage tests were required after commissioning of FE11 at offline 2 (OL2) and revealed occasional dropout of the line heating as well as clear evidence of occasional discharging. After systematic disassembly of FE11 to rule out issues with components and hand polishing of metal surfaces discharges persisted. However, remounting of FE 8 at OL2 revealed an identical rate of discharge and TIMBER data demonstrates the same behaviour from previous online frontends. All evidence points to there being no worsening of this issue with the latest frontends. However, improvement strategies must be considered in the design of the next generation of frontends. Budget has been allocated to install new frontends in LS3. FE11 was transported to the ISOLDE target area on the 19 January 2021 and final installation and commissioning of the FE11 HRS is ongoing with alignment already completed. Beam commissioning at HRS is due to begin in early March.

The committee is informed that, in preparation of the 2021 physics run, 5 UC target units were produced in 2020 and 10 target units have been recuperated from Run 2. It is also planned to produce 15 target units in 2021 depending on the physics schedule. S. Rothe explains that the new supplier contract for vacuum vessels for the ISOLDE target will soon be sent out for tender with the first delivery of the new batch expected during the first quarte of 2022.

The present make-up of the target and ion source development (TISD) team is presented. R. Heinke will become a fellow with RILIS from April and M. Rapps will join the team as a doctoral student in the third quarter of this year.

The status of molecular beam development by the TISD team is presented as well as high resolution mass spectrometry and the further development of nano target materials. S. Rothe then briefly summarises the status of development of the SiC and the Ta-foil targets and presents some of the new equipment now being used by the TISD team.

The committee is informed that the assembly of the updated ISOLDE gas systems, giving 3 independent gas lines to the targets, is taking place and installation on the GPS is foreseen at the end of February. After investigation of alternatives for the ISCOOL He gas injection valves, it has been decided to move back to those originally employed because these valves are now being used in the new ISOLDE target gas injection system and this will allow commonality of spare parts and universality of controls infrastructure to be maintained.

S. Rothe presents the status of the new tape station and explains that final tests with all detectors in place are to be performed by March. Once TS1 is ready, TS2 installation will be launched.

Possibilities for alternating and switching operation of the ISOLDE beamlines, that were presented at the EPIC workshop in 2020 are briefly presented. Sharing mode operation has already been tested at ISOLDE and used for experiments. It can be set up on request and will be integrated into ISOLDE timing system. However, the alternating mode operation still requires proof of concept and a prototype; the search for funding at a level of 100kCHF is underway.

4. Update on RILIS and readiness for operation– B. Marsh

The committee is reminded that RILIS at ISOLDE makes use of 3 ion source types and 6 tuneable lasers to provide 40 ionisation schemes. B. Marsh presents the status of RILIS before LS2 and details the new lasers acquired and the equipment upgrades made during the shut down with the aim of improving access to the full spectral range, achieving better spectral resolution and improving selectivity. The ongoing project to achieve dual HRS and GPS operation is summarised as well as the upgrade of the offline 2 laser laboratory to be used for laser ion source research and development.

B. Marsh tells the committee that 2 Raman laser prototypes (single mode and broadband) have been constructed and single mode operation has been achieved. The status of the Perpendicular Illuminating LIST project is summarised and results of recent laser ion source research and development are presented.

The committee is informed that the LISA (Laser ionisation and spectroscopy of Actinides) ITN is now underway and 15 fellows have been recruited network-wide, 2 of which have already started working at CERN. The aims of the project and the partner institutes are presented.

B. Marsh concludes by presenting the post-LS2 RILIS team:

- 3 Staff members (V. Fedosseev, B. Marsh, E. Granados)
- 3 Fellows (K. Chrysalidis, R. Heinke, B. Reich)
- 1 PhD student (D. Ecchari)
- 1 technical student (R. Mancheva)
- 1 Intern (G. Stoikos)

The committee congratulates the RILIS team on the impressive amount of work completed during LS2.

5. REX / HIE ISOLDE update and plans for 2021– *E. Siesling*

The committee is informed that, despite the severe impact of COVID-19, all crucial hardware tests as well as recommissioning of the REX/HIE ISOLDE facility were successfully carried out during 2020. The cooldown of HIE ISOLDE cryo-modules and recommissioning, with CM4 having been repaired during LS2, went according to the revised plan. Beam Commissioning and numerous machine studies were realized using stable beam from REX and GPS (FE10) although the extensive machine studies that were originally planned could not be scheduled. The highlights of these studies are presented. Many issues have been resolved and the machine is believed to be in good shape for a smooth 2021 start-up.

E. Siesling explains that, while the 2021 planning for low energy physics is mainly driven by the readiness of FE11 and the availability of the protons from PSB, it is the CV maintenance and cryogenics that drive the planning for HIE-ISOLDE. The return of services in the hall on 8th February will allow the hardware test period to begin and the recommissioning of the cryo-plant is due to start on 12th February. The machine check-out and (stable) beam commissioning is scheduled to take place from 12th May; A detailed beam commissioning and machine studies plan is in place for the period from end-April to mid-July. Stable beam will be available to the HIE-ISOLDE experimental stations as of 7th July and then HIE-ISOLDE (RIB) Physics will start at the end of July and run until 15th November. After that, long lived & stable beam will be available until mid-December.

The status of REX/HIE-ISOLDE shutdown activities is presented and the committee informed that all activities are on track.

The committee hears that the relatively early end of protons to ISOLDE this year, on 15th November, is due to the early injector complex stop in preparations of a short YETS '21-'22 and early start of LHC. This means that protons would be available from the PSB towards the end of January 2022 and raises the possibility of an early start of physics at ISOLDE. However, this would require the Cryo plant to be kept running over the CERN annual closure. Warming up and cooling down the HIE SC Linac would mean no HIE-ISOLDE Physics before July 2022 whereas keeping the CMs cold could mean HIE-ISOLDE Physics as soon as protons are available. There would be a gain of 4-5 months extra HIE ISOLDE physics and the Cryo and RF resources necessary for the recommissioning phase would not be required. However, the obligatory yearly stop of the cooling water plants for legionella cleaning and maintenance would not be possible and there would be a cost of running cryo operations over the winter stop. E. Siesling reminds the committee that permission to keep the Cryo plant running over the '20-'21 shutdown period was not granted by the CERN RB but, in his reply to this request, Frederick Bordry (former Director of Accelerators and Technology Sector) stated: 'We could discuss the possibility for the 2021-2022 CERN closure, knowing that the LHC will be maintained with LHe'. The committee agrees that, as soon as the short '21-'22 YETS is approved by the CERN research board, there should be a push for an early 2022 start of ISOLDE physics.

On behalf of the ISCC, the chair thanks all the technical groups involved in the activities presented for their commitment and hard work especially throughout an extremely difficult period.

6. Update on the concept for a new ISOLDE experimental hall –*J.A. Rodriguez*

It is explained that the EPIC workshops held in 2019 and 2020 identified a strong demand to increase the capacity of the ISOLDE facility as well as to increase existing and add new capabilities. To address these needs a new low-energy experimental hall was proposed during the 2020 EPIC Workshop. This would be located across the road from the existing ISOLDE hall taking over the present position of CERN's recuperation building (bld. 133) and the new experimental area (72 m x 50 m) would accommodate approx. 20 experimental stations which would be served by two new underground target areas. The construction of this new hall would not interrupt the physics program of the existing facility. In order to produce enough RIBs to sustain physics programs in all experimental

stations, the new facility would have to be able to handle both 1.4 and 2.0 GeV protons, handle a potentially higher proton intensity from Linac4 and the PSB and minimise the idle time in between experiments. A scheme is presented showing how the production of RIBs could be maximised using double-target front-ends and time separation kickers.

The committee is told that, thanks to funds provided by the collaboration, the CERN Site and Civil Engineering (SCE) department has prepared an initial 3D model of the new experimental hall and the underground facilities. A cost estimate of the building only is being prepared. It is explained that, even though a lot of additional work is still required, no blocking issues have so far been identified and the proposal seems feasible from a civil engineering point of view. The model is then presented. As well as the experimental hall itself, the design includes 3 underground levels (31m x 33m) to house the targets and separators, RILIS/HT/CV and beam distribution and purification. The potential layout of the four different levels is also presented as well as the beamline connection between the PSB and the underground target area of the new ISOLDE hall using the TT70 tunnel. J.A. Rodriguez explains that an optional tunnel between the two experimental halls is being studied which would allow high-energy experiments to profit from the new beam purification possibilities but the issue of an existing service tunnel blocking the route of such a tunnel would have to be resolved. The committee is reminded that the number of beamlines in the present ISOLDE hall would have to be increased in order to expand the HIE-ISOLDE program once low energy experiments move to the new hall.

The initial optics and electromagnetic models of critical elements that would be required for this project (separator dipoles and electrostatic benders) developed by the Beams (BE) department are briefly presented.

The committee comments on the impressive progress made with this project and thanks those involved. It is important to also note that the physics community already has many ideas and proposals to make full use of such a facility.

7. News from the coordinator – *K. Johnston*

The committee is told that the modified accelerator schedule includes the 3 month shift due to the Covid-19 restrictions in 2020 and this has had a knock on effect for physics at ISOLDE this year which is now due to start on 21st June. However, collaborations that have no manpower on-site, have not yet been able to travel to CERN to take care of upgrades and maintenance of their setups, and for the groups on-site progress has also been slower than normal, due to limited access during the past few months. All beams will stop on 15th November, giving 147 days (approx. 300 shifts) for physics during 2021. The schedule should allow for 3 to 4 weeks of winter physics before the start of the shorter than usual year end technical stop (YETS). There will be a final review of the 2021 accelerator schedule in March. It is hoped that ISOLDE can profit from the proposed early LHC start in 2022 because this could be beneficial for HIE-ISOLDE experiments, especially as Miniball is not running in 2021. If HIE-ISOLDE can be kept cold during YETS, the early start would be a great help in reducing the shift backlog which, at the moment, is mostly for HIE-ISOLDE physics. K. Johnston tells the committee that ISOLDE schedules are now integrated into ASM and can be accessed via <https://asm.cern.ch/schedules/calendar?type=ISOLDE&schedule=ISOLDE%20HRS&version=1.0&state=Draft&view=year>.

The overview of experiments and shifts approved at recent INTC meetings is presented. The total number of shifts presently on the books for 66 experiments is 1015.5 and another 266 shifts will be requested at this week's INTC meeting which, if approved, would also be eligible to be scheduled this year although would be given lower priority. K. Johnston informs the committee that quite a number of LOIs have been submitted for this week's INTC meeting so a GUI meeting will be required in the near future in order to set priorities for, among other things, target development. The distribution of

approved shifts with regard to experimental setups and experiments is presented. The bulk of the HIE-ISOLDE shift backlog is made up of experiments at MINIBALL.

K. Johnston explains that the call for beam requests for 2021 was sent out on 11th December last year with an earlier than usual deadline of 27th January in order to allow sufficient time for target preparation. A total of 565.5 shifts have been requested for 2021 and are currently being analysed. Only 5 experiments have requested beam for HIE-ISOLDE due to MINIBALL not being at ISOLDE this year which emphasises the need to start physics early in 2022 to help deal with the MINIBALL backlog. The ISOLDE schedule for this year is likely to be published in two parts with local groups and those able to run at least partly remotely being favoured during the early part of the running period because of probable Covid-19 travel restrictions.

Current regulations regarding access to the CERN site are reviewed. At present tele-working is encouraged for all who can and this is likely to remain in place for most of the Spring. Users are allowed on site and the hostel is open, however, they must announce their arrival to the ISOLDE Physics Coordinator in advance and their onsite presence must be deemed of high importance by their supervisor. If Switzerland or France requires someone to quarantine when arriving from a certain country this must be completed before the person can come onto the CERN site. People 65 and over have to be given special permission by the EP department head to access the site. K. Johnston presents the 5 mandatory online courses now required to have access to the CERN site and advises any Users planning a trip to ISOLDE to check the regularly updated CERN Covid-19 regulations via https://cds.cern.ch/record/2718608/files/COVID-19_QuickRefGuide.pdf.

At present the hands-on courses required to access to the ISOLDE hall are taking place on an on-request basis only and are given by the ISOLDE Physics Coordinator. Discussions are ongoing with regard to how these courses can be organised for the rest of the year given the various restrictions likely to be in place for a large part of 2021. Via the beam requests, it is known that about 125 people will need to take the courses if travel to CERN is allowed. A desire to organise some form of remote separator course later in the year is expressed.

The committee is informed that it will be mandatory to carry a CERN proximeter when on site from the beginning of March until the end of the pandemic. The device will record close contacts and keep records for 2 weeks after which data will be deleted. A proximeter can be collected at building 55 and must be dropped off again at the end of the visit.

K. Johnston explains that, if current safety measures continue, running experiments at ISOLDE this year will not be straight forward and presents how the control room has now been zoned, restricting the access for Users, and the maximum occupancy levels that have been set by the EP department for the rooms in building 508. Hence, remote access/control of setups is recommended wherever possible as it is not expected that all collaborations will be able to make the trip to CERN. The operations team is working on means to allow distance monitoring e.g. for advanced users at home or in the office.

Work taking place in the ISOLDE hall is briefly summarised. The removal of NICOLE has been slower than planned due to on-going work at GLM blocking access to the area where NICOLE will initially be stored. It is hoped that the storage area will be able to be cleared in the coming weeks. Work at VITO is progressing at speed with the plate system to allow the superconducting magnet, that will arrive in March, to be moved easily is already in place. The WISArD crane has been installed in the ISOLDE hall and an outlet has been created to allow lasers from the COLLAPS laser laboratory to reach LA2, to provide laser beam to the 'compact' MIRACLS set-up, which will be installed there for 2 years. At the end of 2022, this set-up will move to the current NICOLE space, where the MIRACLS team will commission a cryogenic Paul trap (activities starting Spring 2021). The combination of cryogenic Paul trap and 30-keV MR-ToF developed at MIRACLS will provide beam to PUMA towards end of 2023.

K. Johnston explains that the eMMA experiment that was detailed in a letter of intent (INTC-I-211) at the beginning of 2020, was originally designed to be an add-on at GLM and to be removable. However, the current design would require part of the set-up to remain in place for a relatively long time making it a semi-permanent set-up. Hence a request for space would have to be evaluated by the ISCC. The eMMA collaboration spokesperson will be invited to the next ISCC meeting.

The committee is told that building 275 is being overhauled in order to optimise the space to make it more usable for ISOLDE Users, relevant storage and offline laboratories. It is also being adapted to accommodate the needs of AD which will take part of the main storage area.

K. Johnston ends by telling the committee that the impressive output of publications and PhDs from ISOLDE has continued during LS2 (more information can be found via <https://isolde.cern/publications>) and that CERN's open access policy is evolving with new arrangements being made with publishers. CERN can assist with open access costs if publications have CERN authors, see <https://scientific-info.cern/submit-and-publish/how-and-where-publish/arrangements-with-publishers> for more details.

8. ISOLDE Financial situation, use of funding in 2021 – *G. Neyens*

The collaboration income and expenditure for 2020 is presented and the committee is informed that the 700kCHF HIE-ISOLDE loan taken out in 2016 has now been fully repaid. However, the collaboration still has to repay 400kCHF a year until 2023 to cover the 2791kCHF CERN pre-payment made towards the HIE-ISOLDE project in 2017.

G. Neyens then presents the evolution of the collaboration account balance since 2017 and the estimated income and expenditure for 2021. This includes 60kCHF of subsistence funding to be distributed to Users coming to CERN to take part in experiments at ISOLDE, applying the same distribution criteria as used for the previous ENSAR2 TNA funding. The committee approves this expenditure, with the note from France that only members of IN2P3 institutions can benefit from such support. The collaboration agrees that the healthy balance of the collaboration finances means that investments in the EPIC project can begin, as the collaboration fee is to be used for the upgrade of infrastructure and keeping the facility at a standard required by the User community.

A revised version of the expenditure for 2021 is presented, taking into account funding requested at this meeting i.e. 100 kCHF for beam switching to allow for parallel operation (S. Rothe), 220k CHF for hardware to complete the 30 keV MR-TOF proto-type (see next talk by S. Malbrunot), 120 kCHF (+90 kCHF in 2022) for a one year extension for the present ISOLDE Physics fellow working on the 30 keV MR-TOF development and 240 kCHF for a 2-year fellow to work on EPIC Conceptual Design preparations (see next talk by J.A. Rodriguez).

The committee approves the extension of the MR-TOF fellow until September 2022 in order to investigate the feasibility of fast beam separation with high current beams, as well as to look into the integration into ISOLDE so that the MR-TOF can be made available to all experiments. The request from S. Rothe for 100kCHF for beam switching development is also approved. Other requests will be discussed after the presentations by S. Malbrunot and J.A. Rodriguez.

Possible IT investment required to facilitate the remote running of experiments this year due to Covid-19 is briefly discussed. The committee agrees that webcams in the experimental hall could be useful.

It is decided that future requests for funding should be organised in a more structured way. All requests should be collected at the end of each year for the following year after a strategic call, made via ISCC members and CERN staff, for funding for equipment used by the whole User community.

9. Fellow request to work on the Conceptual Design Report of the new ISOLDE experimental hall – *J.A. Rodriguez*

The main objectives of the requested fellow are presented. These would be to complete the Conceptual Design Report (CDR) of the new ISOLDE hall by the end of 2022 and to prepare a solid foundation for the Technical Design Report (TDR). J.A. Rodriguez explains that achieving these objectives will make a strong case for having the project considered for the 2025-2029 Medium Term Plan (MTP), provide a convincing argument to get CERN's management agreement to work on the TDR and allow the search for funding sources to begin. The deliverables that would be assigned to the selected fellow are briefly summarised and the committee is informed that BE-OP management has agreed to a significant contribution to achieve the main objectives (~ 1 FTE over 2021-2022) if the fellow request is approved by the ISOLDE Collaboration.

10. The MIRACLS and ISOLDE MR-TOF project – *S. Malbrunot*

The committee is briefly reminded of the principles behind the MIRACLS project. The numerous applications of both a high-flux MR-ToF and the cryogenic Paul trap, which make the development of these devices highly beneficial for the wider ISOLDE User community, are summarised. The ERC grant funding MIRACLS will end in 2022 and it is important that ISOLDE makes the most of the work done during the project which provides unique opportunities for ISOLDE especially with regard to beam purification.

As discussed at the ISCC meeting in June 2020, the goals of the MIRACLS project had to be adapted due to the disruption caused by the Covid-19 pandemic and it is now aimed to install and run a compact MIRACLS at LA2, while commission of the cryogenic Paul trap will be done immediately at RCX10. The low-energy MR-ToF 'proof-of-principle experiment' in building 508 has ended, and it is now used by the TISD team for an experiment and to get experience in operating an MR-TOF. The status and planning of the ongoing work to achieve the goals is presented. Using the Compact MIRACLS setup at LA2 it is hoped to complete the MIRACLS' ERC goals and to commission the 30-keV MR-ToF for fast mass separation before the end of 2022, after which the MR-ToF will be moved to RCX10 in late 2022/early 2023.

S. Malbrunot presents the project budget and explains that 222kCHF still has to be found in order to achieve the goals that have been set. After 2022 the cryogenic Paul trap and 30-keV MR-ToF (plus associated infrastructure, cryocooler, hardware and electronics but without the optical detection region) will be located at the RCX10 beam line, where it will be used to provide high-purity beams for experiments that require it, e.g. the PUMA experiment. Equipment related to the laser spectroscopy at MIRACLS (optical detection, photon DAQ, laser system, etc.) as well as the room-temperature Paul trap (plus associated infrastructure, hardware and electronics), all of which is already operational or under construction, will move to TRIUMF. A request is made to the ISOLDE Collaboration to provide the missing 222kCHF that is necessary for the construction of the 30 keV MR-TOF and its related equipment. The cryogenic Paul trap will be funded by TRIUMF, but will stay at ISOLDE to provide the required beam properties for injection into the 30 keV MR-TOF, in order to reach the requested high-resolution beam purification.

11. Conclusion and approval of 2021 budget – *G. Neyens*

The committee discusses the proposed 2021 expenditure presented by G. Neyens and approves the request by MIRACLS for 222kCHF, provided that the equipment stays at ISOLDE, as stated in S. Malbrunot's presentation, and acts as a prototype to gain experience as well as being used as a fast high-resolution mass separator together with the cryogenic buncher at RX10, to deliver beams with the required quality to PUMA. The request for funding for a CERN fellow, made by J.A. Rodriguez, to work on the CDR of the new experimental hall is also approved.

The expenditure proposal for 2021 presented by G. Neyens is fully approved.

12. Czech ISOLDE community and membership – *M. Veselsky*

The history of experimental nuclear physics in the Czech Republic is briefly summarised. At present the Czech ISOLDE User community comes from two institutes one of which, IEAP CTU Prague, has been an institute member of the ISOLDE collaboration since 2019. The IS experiments in which these two institutes are presently involved are briefly presented. It is hoped to expand the user community to involve not only nuclear physicists but researchers from material and solid state physics as well as biological and medical sciences. To this end, the inaugural user community meeting took place in 2020 and a number of institutes were identified to be interested. These institutes, some of which have recently received major EU grants, along with their main research interests are presented.

M. Veselsky explains that there was an initiative in 2020 to include full membership of the ISOLDE collaboration in the Czech central financing for 2023-2029. Unfortunately, this initiative was unsuccessful. However, after the interest shown at the first Czech user community meeting, there is now a possibility of forming a consortium which would establish conditions for full membership earlier than 2029.

13. Bulgarian ISOLDE community and membership – G. Rainovki

The two institutes, Sofia University and INRNE-BAS, from which researchers are presently involved with experiments at ISOLDE are briefly presented. As there are no operational facilities in Bulgaria, the main nuclear physics activities are carried out abroad as part of a number of international collaborations. An overview of Bulgarians involved in experiments at ISOLDE is presented. This includes experiments in Mössbauer spectroscopy and at COLLAPS, ISOLTRAP and MINIBALL. There is also a history of one of the two CERN summer student positions available to Bulgarian students being awarded to ISOLDE.

G. Rainovski tells the committee that the Bulgarian nuclear physics community is small but vital and that there has been a long standing and visible involvement of Bulgarian scientists in ISOLDE experiments. However, until now, this has mostly been a personal involvement rather than an institutional one and funding for long term involvement has been unavailable due to unpredictable funding cycles. There have been attempts to join the ISOLDE collaboration in 2014 and 2016 which were unsuccessful but now a Bulgarian national roadmap for research infrastructures exists for 2020 – 2027 which is a national projection of the ESFRI roadmap and includes 50 domestic and international laboratories; CERN is included for nuclear physics. The consortium “Bulgaria at CERN”, in which Sofia University and INRNE, BAS are partners, has been set up and is coordinated by Sofia University. The consortium has a budget of 250 k€ for 2021 with the budget for the following years being decided upon annual performance evaluation; evaluation criteria will be the number of experiments in which Bulgarian scientists are involved and the number students and young scientists attracted. The main goals of the consortium will be:

- to officially join ISOLDE, ALICE, and NA61
- to provide more stable financing for Bulgarian teams involved in these experiments
- to allow more Bulgarian scientist and students to become involved and to assume more active roles and responsibilities
- to provide the infrastructure in Bulgaria needed for participation at CERN (detector laboratories, electronics workshops etc.)

G. Rainovski asks the committee to approve the request from Bulgaria for membership of the ISOLDE collaboration on a reduced fee of 30kCHF from 2021. Discussion: see next point.

14. News from ISOLDE group and collaboration matters – G. Neyens

The present manpower situation in the ISOLDE Physics Group is summarised by G. Neyens.

- **Scientific Associates:** Robert Berger (5 months, April 2021 – August 2021), Ismael Martel (6 months, October 2020 – March 2021), Sorin Pascu (6 months, February 2021 – July 2021). Deadline for new applications: 13th March 2021.
- **Corresponding Associate:** Mikolaj Baranowski (3 months, July 2021 – Sept. 2021). Deadline for new applications: 13th March 2021.
- **Staff Members:** Stephan Malbrunot-Ettenbauer (ERC MIRACLS/TRIUMF from March 2022) (February 2017 to August 2022), Karl Johnston (Physics Coordinator) (October 2015 to September 2022), Gerda Neyens (Physics Group Leader) (June 2017 to August 2021), Magdalena Kowalska (CERN staff member) (January 2020 -).
- **User:** Jenny Weterings (User Support) (2002-)
- **Research Fellows:** Maxime Mougeot – ISOLTRAP (Sept 19 – August 2021), Razvan Lica – IDS (June 2020 – May 2022), Liss Vasquez Rodriquez - COLLAPS (Oct. 2020 – Sept. 2022), Erich Leichensteiner (April 2021 – March 2023). Deadline for new applications: 1st March 2021.
- **Applied Fellows:** Dinko Atanasov – WISArD & Low Energy Experiments (April 2019 – June 2021), Markus Vilen – MR-ToF for ISOLDE and MIRACLS (October 2019 to September 2021), Bruno Olaizola – HIE-ISOLDE (September 2020 – August 2022). Deadline for new applications is the same as for Research Fellows, 1st March 2021.
- **Doctoral Students:** Varvara Lagaki (CERN-MIRACLS) (September 2017 to February 2021), Simon Lechner (CERN-MIRACLS) (September 2017 to February 2021), Jared Croese (CERN- EP-SME) (February 2018 to July 2021), Peter Plattner (CERN via Austrian Doctoral Program) (August 2018 to July 2021), Katarzyna Maria Dziubinska-Kuhn (CERN-ERC Betadrop) (October 2018 to August 2021), Karolina Kulesz (CERN-ERC Betadrop) (October 2018 to September 2021), Lukas Nies (CERN via Gentner Doctoral Program) (November 2019 to October 2022), Franziska Maier (CERN-MIRACLS via Gentner Doctoral Program) (February 2020 – January 2023), Michail Atanasakis (CERN EP-SME) (Sept. 2020 – Aug. 2023), Marcus Jankowski (CERN via Gentner Doctoral Program) (January 2021 to December 2023) Tim Lellinger (CERN via Gentner Doctoral Program) (March 2021 – February 2024).

The contract of the present ISOLDE Group leader has been extended by 2 months until the end of August 2021 in order to allow an overlap of one month with the incoming group leader, S. Freeman, who's contract will begin on 1st August.

The committee is informed that the new call for Horizon Europe Research Infrastructure funding is expected to be in June 2021 with the submission deadline in September. Funding that will be available for research infrastructures services advancing frontier knowledge, which will be shared between a minimum of two projects of two distinct communities, is expected to be about 30 million Euros. Legal entities established in Australia, Brazil, Canada, China, India, Japan, Mexico, New Zealand, Republic of Korea, Russia, United Kingdom and USA, which provide, under the grant, access to their research infrastructures to researchers from Members States and Associated countries, will be eligible for funding. The eligible costs will be the unit costs for trans-national access to research infrastructures as well as costs for virtual access. G. Neyens summarises the award criteria for this call as well as the expected outcomes of the funding project and explains that a discussion document has been prepared by ISOLDE and sent to the RIB facilities' proposal coordinators, Navin Alahari (GANIL, IN2P3) and Maria Colonna (Catania, INFN). This document will be made available via <https://indico.cern.ch/event/998887/>. A discussion follows about the possible data management requirements of future EU funding projects and what this might mean in practise for the nuclear physics community.

G. Neyens summarises the collaboration membership fee situation and informs the committee that, at the time of this meeting, the Spanish fees for both 2019 and 2020 are still outstanding and that Poland owes 20.5kCHF for 2019 and 57.4kCHF for 2020. M. Pfützner, the Polish representative, asks that, if the issue of Polish funding has not been solved by June, this matter be discussed at the next ISCC meeting.

The committee discusses the requests by the Czech Republic and Bulgaria to join the ISOLDE Collaboration. It is decided that contact will be maintained with the Czech community at ISOLDE in order to establish what type of membership they would be in a position to request. The committee is positive towards the possibility of the Czech Republic joining the collaboration. The request for membership by Bulgaria at a reduced fee rate is accepted and the updates to the ISOLDE MoU Annexes required before Bulgaria can sign the document are approved. The usual reduced fee rate period for new member states is 3 years after which the full fee should be paid. However, in exceptional circumstances, this period can be extended at the request of the member state and upon approval by the ISCC. The reduced fee period for both Greece and South Africa was extended until 2022 inclusive at the ISCC meeting in July 2019. The committee approves the request from Bulgaria to pay the reduced fee for a period of 4 years from 2021 to 2024.

15. Preparation of the EPIC Special Topics – K. Flanagan

The committee is briefly reminded of the motivation behind the EPIC (Exploiting the Potential of ISOLDE at CERN) project. Two workshops, each with over 100 participants, have taken place and helped to identify issues such as potential new experimental synergies between ISOLDE, AD and nTOF and research requirements for 2D and Quantum Materials. Upgrades to the existing facility (beam dumps, parallel operation, MR-TOF) and preliminary concepts for a new hall were also discussed. K. Flanagan explains that the next step is to collect all this information into a single document that can be pointed to and presented to funding bodies and policy makers. The committee is informed that a coordinating board has been established to prepare this document and after two meetings of this board an outline document, which will be available via the indico site of this ISCC meeting <https://indico.cern.ch/event/998887/>, has been sent to and approved by EPJ Special Topics. The coordinators of each section of the document and their teams will begin the writing process this month after collecting information from the wider community. It is hoped to distribute a preliminary draft to the wider ISOLDE community to enable wider engagement and the final document should be ready for submission after the summer. G. Georgiev suggests a reading team, made up of ISCC members, should be set up to check the final document before it is submitted to EPJ and agrees to be part of that team.

16. New chair for ISCC ? – G. Neyens

The ISCC chair, K. Flanagan, leaves the meeting while the committee discusses the implications of the next ISOLDE Group Leader, S. Freeman, and the current ISCC chair being from the same country as well as the same institute. It is decided that, even though K. Flanagan is doing an excellent job as the ISCC Chair, in order to ensure diversity the ISCC Chair and the ISOLDE Group Leader should not come from institutes in the same country. This decision should set a precedent to avoid the need for future discussion on the matter.

17. Procedures for appointing new ISCC chair and ISOLDE Group Leader – K. Flanagan

The committee decides that the selection of the next ISCC chair should take place at the June 2021 ISCC meeting to allow the person selected to attend the meeting in November and then take over as Chair at the beginning of 2022. The usual term for the chair position is 3 years. A selection committee is set up consisting of the INTC Chair, M. Pfützner, and two ISCC members, L. Fraile and H. Fynbo. All ISCC members can suggest possible candidates for the ISCC Chair position to the selection committee which will then contact those suggested to explain the responsibilities of the ISCC Chair

and to inform them that any application documents they provide will be forwarded to the members of the ISCC but will not be distributed any further. Candidates should send their CV and a motivation letter to the selection committee by June 1st.

K. Flanagan presents the input received from ISCC members regarding the procedure for selecting the ISOLDE Group Leader and Physics Coordinator. A short discussion follows.

18. Dates of the next meeting

The next ISCC meeting will take place on Tuesday 22nd June 2021.

Meeting ends at 16:55.

N.B. The overheads of the above presentations can be found via <https://indico.cern.ch/event/998887/>.