

IUPAP Rejuvenation. Proposal from 2025 discussions.

After the self-evaluation report presented to the 32nd IUPAP GA in 2023 (https://indico.global/event/7207/contributions/66991/attachments/32361/59933/self_evaluation_complied_by_silvina.pdf), the various rounds of consultation with different IUPAP structures, the analyses on the different IUPAP bodies (Commissions, https://indico.global/event/7208/contributions/67024/attachments/32377/60064/support_info_commissions.pdf, Affiliated Commissions, https://indico.global/event/7208/contributions/67024/attachments/32377/60054/support_information_to_discuss_about_ACs.pdf, and Working Groups, https://indico.global/event/7208/contributions/67024/attachments/32377/60066/support_information_to_discuss_about_WGs.pdf) and the External Evaluation report presented to the 33rd IUPAP GA in 2024

(<https://indico.global/event/7208/contributions/67024/attachments/32377/60053/2024IUPAP-ExternalReview-Report.pdf>), IUPAP sent out an invitation to all its members to suggest names to form a rejuvenation task force that would analyze these antecedents and make a proposal of changes to be presented for the consideration of the 34th GA to be held in October 2025. The rejuvenation task force was finally composed by:

- Silvina Ponce Dawson, IUPAP President; Chair of the task force
- Michel Spiro, IUPAP Past President
- Sunil Gupta, IUPAP President Designate
- Stefano Fantoni, IUPAP Secretary General for Administrative Affairs
- Gillian Butcher, IUPAP VP for Diversity, Equity and Inclusion
- Igle Gledhill, IUPAP VP for Membership and Development
- Laura Greene, IUPAP VP for Ethics and Outreach
- Kuijuan Jin, IUPAP VP for Special Projects and Fundraising
- Christopher Rossel, Chair of IUPAP WG16 on Physics and Industry
- Cathy Foley, member of IUPAP's external evaluation committee
- Kai Liu, former chair of IUPAP Commission C9 on Magnetism
- Rosario Gonzalez-Ferez, former chair of IUPAP Commission C15 on Atomic, Molecular and Optical Physics
- Tsuneyuki Ozaki, former chair of IUPAP Commission C17 on Laser Physics and Photonics
- Rolf Haug, former chair of IUPAP Commission C8 on Semiconductors

Taking into consideration some of the key recommendations included in the External Evaluation report, the group was divided in three sub-groups that looked at the following issues:

1. Communications, formed by Kai Liu, Michel Spiro and Rosario Gonzalez-Ferez which also received input from members of the International Association of Physics Students (IAPS). The aim of this group was to make proposals to enhance IUPAP's visibility among physicists, students, and physics-related companies through

targeted communication strategies and to build a database of members of the physics community.

2. Restructuring and/or structures rejuvenation, formed by Silvina Ponce Dawson, Gillian Butcher, Rolf Haug and Tsuneyuki Ozaki, with the participation of Igle Gledhill and Laura Greene to look at the situation of Commission C2 and WG13. The aim of this group was to suggest re-organization steps to better advance the aims of the Union, particularly, to address transversal issues like physics for development, physics education, inclusion and diversity, and industrial applications of physics paying special attention to the purpose and impact of IUPAP, keeping in mind its role within the physics community.
3. Increasing revenue and liaising with physicists outside academia and physics related companies, formed by Chris Rossell, Cathy Foley, Laura Greene, Sunil Gupta, Kuijuan Jin, Stefano Fantoni.

Each of these sub-groups produced a set of recommendations that were then discussed by the whole group. We describe in what follows the recommendations that ensued from these discussions.

Restructuring

IUPAP Commissions

Commission C1

Currently the members of Commission C1 are the officers: President, Past President, President Designate, Secretary General and Deputy Secretary General, Secretary General and Deputy Secretary General for Administrative Affairs, Associate General Secretary, and Treasurer. The officers meet monthly to advance the functioning of IUPAP in between GAs. Since the EC&CC meeting held in January 2025, the VPs at Large for Membership and Development and for Projects and Sponsorship participate in these monthly meetings. Their participation is very relevant to discuss various policy issues. It is thus recommended that they be part of Commission C1. If this change is approved, the members of C1 will then be:

- President (C1 Chair),
- Past President,
- President Designate,
- Secretary General,
- Deputy Secretary General,
- Secretary General for Administrative Affairs,
- Deputy Secretary General for Administrative Affairs,
- Associate General Secretary,
- Treasurer,
- Vice-President at Large for Membership and Development,
- Vice-President at Large for Projects and Sponsorship.

Commissions C3-C6, C8-C12, C14-C20

Commission C3-C6, C8-C12, C14-C20:

- Remain as they are. The appointment of a member of one of these Commissions as Associated Member of another will be encouraged to increase their interaction.
- Commission clusters will be represented by Vice-Presidents on the Executive Council (see clustering proposal below).

Commissions C2 and C13

The discussion on the future of Commissions C2 (*Symbols, units, nomenclature, atomic masses and fundamental constants*) and C13 (*Physics for Development*) will ensue after the 34th IUPAP GA.

Creation of the Commission on Soft Matter

WG15, IUPAP's Working Group on Soft Matter, will become the Commission on Soft Matter (C7?). This move has the support of WG15 and the Commissions on Statistical Physics (C3), Biological Physics (C6) and Computational Physics (C20). Right now, WG15 has 14 members (as many as regular Commissions) territorially distributed in the following way: four members from the US (among them, the WG's Chair), one from each of these territories: Canada, Australia, China-Beijing, India, Japan, Republic of Korea, France, Germany, Italy and UK. This composition does not abide by IUPAP's Internal Regulations. Please see attached resolution for the creation of the new Commission which contains a proposal of how to make a transition towards a new composition that complies with IUPAP's Internal Regulations. The creation of this Commission would not entail a significant new expenditure since the funds that are yearly allocated for the workings of WGs are the same as those allocated for Commissions. On the other hand, the International Conference on Soft Matter has been sponsored by IUPAP as a Type A Conference under the recommendation of C3, Statistical Physics. Finally, having a new Commission Chair would require an additional financial support on behalf of IUPAP for their participation in the in-person GAs and EC&CC meetings. However, it is expected that this additional cost will be covered by reducing expenses currently allocated for Affiliated Commissions.

Representation of Commission Clusters on the Executive Council

It is proposed that each of the 5 Vice-Presidents from Commissions will represent one of the following clusters:

- Cluster 1: C3 (Statistical Physics), C6 (Biological Physics), C7? (Soft Matter)
- Cluster 2: C4 (Astroparticle Physics), C11 (Particles and Fields), C12 (Nuclear Physics), C19 (Astrophysics)
- Cluster 3: C5 (Low Temperature Physics), C8 (Semiconductors), C9 (Magnetism), C10 (Structure and Dynamics of Condensed Matter)

- Cluster 4: C15 (Atomic, Molecular and Optical Physics), C16 (Plasma Physics), C17 (Laser Physics and Photonics)
- Cluster 5: C2 (Symbols, units, nomenclature, atomic masses and fundamental constants), C18 (Mathematical Physics), C20 (Computational Physics)

It is proposed that the Vice-President at Large for Projects and Sponsorship will represent Commissions C13 (Physics for Development) and C14 (Physics Education).

Representing in this context means that the corresponding VP will be the link between the Executive Council and the Commissions in the cluster for all purposes: to convey requests and information to/from the Commissions, to ensure that Commissions perform their expected tasks in due time and according to the guidelines, and for any other matter that might arise.

IUPAP Affiliated Commissions

Affiliated Commissions (ACs) are international groups of scientists, constituted as an independent body, whose field does not coincide with that of an IUPAP Commission. Their chairs are Personal Members, Ex-Officio, of IUPAP. As such, they have voting rights and are exempted from paying membership dues. The involvement of IUPAP in the internal workings of ACs depends on each AC. The International Organizations that are IUPAP ACs should clearly indicate information on this liaison prominently on their websites. The logo of IUPAP should be used to this end as well as a link to the IUPAP website. We first list the guidelines that we propose should rule the relationship of IUPAP with AC1-AC4. AC5 and AC6 are slightly different and will be considered separately, immediately after.

AC1-AC4

This proposal has been shared with the Chairs of AC1-AC4 for their consideration. It is advisable that MOUs be signed accordingly.

1. No funds will be allocated in the budget for the regular functioning of AC1-AC4 (other than the items listed in what follows).
2. Specific funds will be allocated for AC1-AC4 to give one Early Career Scientist Prize (ECSP) per year, as done by IUPAP's regular Commissions. The call for nominations should be informed to the IUPAP secretariat before being issued and should be included in the IUPAP website (see e.g., <https://iupap.org/awards/calls-for-nominations/>). The call should abide by the rules that regulate all IUPAP's ECSPs including years from PhD, career interruptions, diversity of candidates, ethics statement, statement about the candidate being considered for another ECSP (see <https://iupap.org/awards/>). Additional requisites could be included as needed by the subfield.
3. The Chairs of AC1-AC4 participate in the EC&CC meetings on equal terms as the chairs of regular Commissions. In principle, IUPAP will not provide financial support to cover the expenses of these chairs to attend the EC&CC meetings when

they are held in person. The possibility of providing some support will be discussed on a one-to-one basis and might be included in the specific MOU.

4. AC1-AC4 will analyze the submissions of requests for conference support in their fields of expertise and submit their recommendations for the consideration of the EC as done by regular Commissions. The chairs are responsible for ensuring that the organization of the conferences follow the guidelines required by IUPAP and submit their reports in due time.
5. AC1-AC4 will submit a yearly written report for the consideration of the IUPAP EC and the immediately subsequent GA that is usually held in October each year. The report should be sent one month in advance of the corresponding EC&CC meeting.
6. If the AC has a flagship conference and wishes to receive IUPAP sponsorship for it, the Conference should not only abide by the rules requested by IUPAP, but also should mention IUPAP prominently and carry the IUPAP logo on all its materials. Some questions here: should a cap to the award amount be set below the award to type A conferences of regular commissions? Are we going to limit the number of flagship conferences to 1 every 3 years?
7. The chairs of ACs have the same voting rights on the IUPAP GA as Commission chairs.

AC5 (Physics Students, IAPS)

An MOU between IAPS and IUPAP is needed. Considering the guidelines proposed for AC1-AC4, a possible set of guidelines to rule the relationship between IAPS and IUPAP could be:

1. AC5 will receive the same level of financial support as a regular IUPAP Commission. Should we do this?
2. The same level of funding that is allocated for each ECSP will be given for the joint IUPAP-IAPS Prize (to be named: "IUPAP-IAPS Outstanding Student Award"), with the exception of the medal. The prize will only include a monetary award and a certificate. The possibility of adding something else will be advanced depending on funding. The award will reward academic excellence and community building.
3. AC5 will submit a yearly written report for the consideration of the EC and the immediately subsequent GA that is usually held in October each year. The report should be sent one month in advance of the corresponding EC&CC meeting.
4. IUPAP will provide financial support for the yearly held International Conference of Physics Students (ICPS) as an A-Type conference and for the PLANCKS competition as a B-Type conference. If it happens that IAPS is willing to organize other conferences/schools, they will need to submit the request for sponsorship or endorsement through a regular IUPAP Commission (most likely Physics Education, C14, or Physics for Development, C13).
5. AC5 will not analyze requests for conference sponsorship or endorsement other than the ICPS and the PLANCKS activities referred to before.
6. The President of IAPS will have the same voting rights on the IUPAP GA as Commission Chairs.

AC6 (History and Philosophy of Physics)

An MOU was signed between IUPAP and the Division of History of Science and Technology ([DHST](#)) of the International Union of History and Philosophy of Science and Technology, [IUHPST](#), through which the Inter-Union Commission on the History and Philosophy of Physics ([IUCHPP](#)) was created with, in principle, 3 representatives of IUPAP and 3 of IUHPST. At the time of the creation, the [Commission for the History of Physics](#) of the IUHPST/DHST, had six members. IUPAP didn't have separate names to propose as IUPAP representatives. So, the Commission for the History of Physics became IUCHPP and 3 of its members were considered as "representing" IUPAP. On the other hand, all its members mainly did research in the history (not the philosophy of physics). One of the first questions that needs to be responded is whether IUPAP wants to have one commission covering both the history and philosophy of physics and, if that's the case, how feasible that is right now. IUHPST consists of two independent divisions, each with its own membership and governance structure: [DHST](#) and the [Division of Logic, Methodology and Philosophy of Science and Technology](#) (DLMPST) and while researchers in the history of science and technology are affiliated with DHST, philosophers are related to DLMPST. Thus, if IUCHPP were to keep the structure agreed upon in the IUPAP-DHST/IUHPST MoU, the only choice to have philosophers in the Commission would be for IUPAP to nominate them, e.g., all the philosophers would be elected by IUPAP and the historians by DHST. This option does not seem very balanced. A more balanced way to incorporate philosophers would be to establish a new MoU with DHST and DLMPST and redefine completely the structure of the Inter-Union Commission. After discussing these options with the current chair of AC6, for the time being, we concluded that is more reasonable to keep AC6 as a Commission on the History of Physics. Still, even if the Commission covers only this field, there are two options to move forward:

- a) IUCHPP becomes independent of IUPAP as other ACs and IUPAP does not appoint anybody to serve on IUCHPP as its representatives. Following this change, AC6 is treated in the same way as AC1-AC4 as described before.
- b) IUPAP chooses three members to serve on IUCHPP and some funds are allocated for the functioning of the Inter-Union Commission (because it would not be a completely independent body as AC1-AC4 are). One option to choose the IUPAP representatives would be to invite IUPAP members to submit nominations. This could be done simultaneously with the invitation to nominate members of regular Commissions. Regarding the financial support provided by IUPAP, one option is to match the funds given by DHST. The other is to give some fraction (half?) of what is given to regular Commissions, given that half the members of the Inter-Union Commission are selected by IUPAP.

IUPAP Working Groups

WG1 (ICFA), WG7 (ICUIL), WG9 (ICNP), WG11 (GWIC)

These WGs and the proposed WG on Neutron Research Facilities (submitted by the US LC for the consideration of the 33rd IUPAP General Assembly) are venues where the

people in charge of different types of research facilities/infrastructure get together and discuss their future. It is proposed that these WGs be transformed into **Standing Committees** under Commissions and that, if the proposal to create a structure on Neutron Research Facilities is approved, that this structure be a Standing Committee under a Commission as well. For more details on this new type of structure, please look at the Resolutions that are being presented for the consideration of the 34th IUPAP GA and the changes that are proposed to be introduced in IUPAP's Articles and Regulations.

WG14, Particle Accelerators for Science and Society

This WG currently operates under the umbrella of Commission C11 (as ICFA does). However, it is not clear if its aim is to be a venue for the cooperation among facilities as the WGs that we are proposing to transform into SCs, or if its goals are more related to outreach and public engagement. This needs further discussion to be carried out after the 34th IUPAP GA to be held in October 2025. For the time being, it is recommended that it stays as it is through the 35th IUPAP GA to be held in 2026.

WG15, Soft Matter

As already mentioned, it is recommended that WG15 be transformed into the Commission on Soft Matter (possibly as Commission C7; this commission number had previously been used by the Commission on Acoustics which then became AC3, the International Commission for Acoustics).

WG13, Newtonian Constant of Gravitation

The purpose of WG13 is to understand the discrepancies in the measurements of the Newtonian Constant of Gravitation G , to facilitate information exchange between the research groups that are trying to obtain accurate measurements of the constant, and to be a hub of information on this topic in general. WG13 was inactive for many years. In 2024 they submitted a report for the consideration of the 33rd IUPAP GA. In 2025, they responded to the request of the Rejuvenation Task Group and sent a proposal of how to go on from now. In particular, they proposed to continue working with the structure of WG13 under new leadership. The reason for this proposal is that several experiments should be providing new results in the near future, and that a new systematic effect yielding a spurious temperature effect has been found. A better understanding of these results require international coordination, which at present can effectively be provided by WG13 of IUPAP. WG13 then proposed to advance following these steps:

1. Change of leadership with Christian Rothleitner of PTB taking the position of chair of the working group, with the former chair, Stephan Schlamminger, helping as appropriate.
2. Finish the planned living review article on the measurements of G by the end of 2025, with substantial progress to show at the 34th IUPAP General Assembly.
3. Hold an IUPAP WG13 meeting in 2026.
4. Update the WG13 website to be used as a resource for the groups conducting research on measuring G . The updated site would include a comprehensive list of

citations of G publications as well as a guide on how to select materials for source masses together with a list of material properties.

This proposal has been circulated within the C2 commission. Should this proposal be accepted, WG13 would continue to exist to the next in-person GA to be held in 2027. In the meantime, this decision can be revised in the context of the future of Commission C2.

WG5, Women in Physics

WG5 has a very well-established name even if it does not exactly fit within the definition of a WG. It is proposed that it will work under the umbrella of a DEI Standing Committee chaired by the Vice-President at Large for DEI, keeping its name for historical reasons (see description later in this document). The DEI SC would be one of the SCs under Vice-Presidents described in the Section about the EC.

WG18, Ethics

It is recommended that WG18 be transformed into a Standing Committee on Ethics, possibly with a renewal of its members (see description later in this document). The Ethics SC would be one of the SCs under Vice-Presidents described in the Section about the EC and would be chaired by the VP at Large for Ethics.

WG16, Physics and Industry

It is recommended that WG16 be transformed into a Standing Committee on Physics Outside Academia (see description later in this document). The SC on Physics Outside Academia would be one of the SCs under Vice-Presidents described in the Section about the EC. To this end, the position of VP at Large for Physics Outside Academia should be created.

WG19, Quantum Science and Technology:

WG19 should advance the discussion with relevant commissions on whether (and how) to create a commission on QST as done by WG15 (Soft Matter). To this end, the former Chair of WG19, Shohini Ghose, who stepped down from her position, should be replaced by a new Chair (see accompanying resolution). The help from relevant commissions should be sought to advance with the task of WG19.

WG20, Open Science:

WG20 started to work very recently, it should continue its existence as it is at least through the next in-person GA to be held in 2027.

WG21, Physics for Climate Change Action and Sustainable Development:

WG21 started to work a few years ago, it should continue its existence as it is at least through the next in-person GA. Its scope is intrinsically related to Physics for Development and as such needs to be included within the broader discussion of how to address physics for development which should ensue the 34th IUPAP GA. Physics for Development and the themes of WG21 are transversal to most commissions and working groups. It is thus expected that Commissions and WGs take an active part in this discussion.

New Working Groups

The US Liaison Committee submitted the proposals to create a WG on Neutron Research Facilities and another on Artificial Intelligence (AI) and Machine Learning (ML) for the consideration of the 33rd IUPAP General Assembly held in 2024. The first one fits within the definition of the Standing Committees under Commissions referred to above (and defined in the proposed new articles and regulations). It is then recommended that a ***Standing Committee on Neutron Research Facilities*** be created under Commission C10 (Structure and Dynamics of Condensed Matter). This option was agreed upon by the submitters of the original proposal and has to be discussed with the chair of C10. AI and ML are very important themes and IUPAP should do something about them. They involve so many aspects that the proposal is to create a ***Working Group on Artificial Intelligence and Machine Learning*** that will look into these multiple aspects and issue a recommendation for IUPAP on which aspects to prioritize and how to move forward without disrupting the work of existing commissions (see accompanying resolution). The creation of this new WG would entail an additional expense that would be compensated by the savings that will follow from the changes in the relationship with ACs.

In discussing the creation of the category of Standing Committee under a Commission, other areas for which IUPAP could provide a venue for interaction and discussion were identified. One of them is Fusion Facilities; the other is Advanced Light Source Facilities. The latter is directly related to the LAAAMP project of which IUPAP is a founding partner. In order to advance in this regard, the creation of a ***Working Group for the creation of new Standing Committees under Commissions*** which will look into the possibility of creating SCs in these areas is proposed (see resolution).

IUPAP Executive Council

Right now, the EC has four Vice-Presidents at Large:

- for Projects and Sponsorship;
- for Ethics and Outreach;
- for Diversity, Equity and Inclusion;
- for Membership and Development.

and five VPs from Commissions.

A Membership and Development Committee chaired by the VP for Membership and Development has recently been created. IUPAP's communications, including outreach, are overseen by the Deputy Secretary General for Administrative Affairs (with similar

affiliation as the person who produces all the communication pieces of IUPAP). Given the proposal to create an Ethics Standing Committee to be chaired by a member of the EC, it would be advisable that the VP at Large for Ethics and Outreach become the VP at Large for Ethics (and chairs the Ethics Standing Committee as described later). The outreach activities could then be included within the communication tasks. In particular, the position of Secretary General and of Deputy Secretary General for Administrative Affairs could be renamed as Secretary General and Deputy Secretary General for Administrative Affairs, Communications and Outreach. As described later, we are also proposing to create a DEI Committee to be chaired by the VP for DEI. Then, a structure can be envisaged in which the VPs at large chair a specific committee (which could be composed by Commission members or other EC members as well as of “externally appointed people” suggested by IUPAP’s members). In that regard, it would be good to transform WG16 on Physics and Industry into a Standing Committee on Physics outside Academia and have its chair be a VP for Physics outside Academia. These Committees would be Standing Committees under Vice-Presidents (see attached proposed resolution in this regard). These changes would not entail an increase in expenditure, since the funds originally allocated for the corresponding WGs would be redirected for the new SCs.

As already stated, the VPs from Commissions should represent Commission Clusters. As such they would be in charge of collecting their concerns, requests and recommendations; conveying relevant information and guaranteeing that they fulfill their assigned tasks (reports, conference evaluation and recommendation, prizes, etc) in due time and according to the guidelines established by the union. On the other hand, as mentioned before it is recommended that, for the time being, the VP at Large for Projects and Sponsorship represent the Commissions C13 (Physics for Development) and C14 (Physics Education) as well as being in charge of overseeing LAAAMP and other future projects.

Finally, to strengthen the relations with the newer generations, it could be good to create the position of Vice-President at Large for Physics Students in the EC. How this position would be filled requires further discussion as described later.

In summary, for the time being, it is proposed that the EC be formed by
the officers:

- President, Past President, President Designate,
- Secretary General and Deputy Secretary General (the name of these positions had to be changed by the EC, see resolution seeking the approval of the GA for this decision of the EC),
- Secretary General and Deputy Secretary General for Administrative Affairs and Communications,
- Treasurer,
- Associate General Secretary;

the Vice-Presidents at Large:

- for Membership and Development (chairing the Standing Committee for Membership and Development),
- for Diversity, Equity and Inclusion (chairing the DEI Standing Committee),

- for Ethics (chairing the Standing Committee on Ethics),
 - for Physics Outside Academia (chairing the Standing Committee for Physics outside Academia),
 - for Projects and Sponsorship (overseeing LAAAMP and other future projects and, for the time being, representing C13 and C14);
- and the five Vice-Presidents from Commissions, each of them representing one of the following Commission Clusters:*
- Cluster 1: C3 (Statistical Physics), C6 (Biological Physics), C7? (Soft Matter),
 - Cluster 2: C4 (Astroparticle Physics), C11 (Particles and Fields), C12 (Nuclear Physics), C19 (Astrophysics),
 - Cluster 3: C5 (Low Temperature Physics), C8 (Semiconductors), C9 (Magnetism), C10 (Structure and Dynamics of Condensed Matter),
 - Cluster 4: C15 (Atomic, Molecular and Optical Physics), C16 (Plasma Physics), C17 (Laser Physics and Photonics),
 - Cluster 5: C2 (Symbols, units, nomenclature, atomic masses and fundamental constants), C18 (Mathematical Physics), C20 (Computational Physics),

Ethics

As stated by the current Chair of WG18, Ana Maria Cetto, ethics is a cross-cutting very important area that deserves a standing committee or some other kind of permanent body in the new structure of IUPAP. It deals with a number of critical issues. The proposed DEI committee (see below) would be best suited to address issues of bullying, discrimination, and sexual harassment. The Ethics Committee should be chaired by the VP on Ethics.

Beyond “research integrity” (i.e. conducting rigorous, reproducible research), there are various other standing and emerging issues that the SC on Ethics should look at. These include:

- Academia-industry relationships and associated conflicts of interest
- Academia-military relationships and associated conflicts of interest
- Policy statements on critical matters of a technical nature
- Statements on issues with political implications.

These are not temporary issues; they evolve and can become critical, significantly impacting policy, decision-makers, physics-related bodies and local physics communities.

Challenges must be addressed with determination by effectively tackling issues when they arise, allowing for open speech while avoiding disruption, harassment, and threats. The SC on Ethics should support IUPAP in effectively addressing these issues as they arise.

Furthermore, in addition to tackling these issues, the SC on Ethics could function as an observatory of emerging issues with an ethical component (e.g., Artificial Intelligence) and play an advisory role to IUPAP’s governing bodies.

Diversity, equality and inclusion and liaison with WG5

A Diversity, Equality and Inclusion (DEI) Committee should be created to oversee the DEI work. Chaired by the DEI Champion, the committee should be composed of the chairs of WG5, and possibly of C13 and C14 and of a representative from the Ethics committee, and “experts” in various aspects of diversity (these could be positions proposed by IUPAP members, but places should also be retained for non-IUPAP member regions to allow further diversity/inclusion.

The aims of the Committee would be to ensure that IUPAP is an entity that follows good DEI practice and to promote and share good practice amongst IUPAP members. It should continuously review practices across the globe, assess what works and create and maintain a diversity action plan.

WG5 would work under the umbrella of the DEI SC. WG5 has an established identity and it would be preferable to retain that name, even if it does not quite fit within the definition of WG. DEI Champion/chair would continue to be ex-officio on WG5 meetings. The WG5 mandate was recently updated to reflect its current activities WG5 and the DEI Committee could review the mandate periodically.

There had been a thought of creating further WGs for other specific under-represented groups, such as ethnicity, disability. However this is against the current move towards intersectionality and the multi-faceted nature of DEI. While this broader, more holistic approach is preferable there may/will be a need at times to focus on a specific issue. The proposal is therefore that the DEI Committee has oversight of areas to address and prioritizes them. Working Groups could then be initiated to carry out such specific DEI tasks or projects. For instance to review IUPAP’s online presence for accessibility and recommend solution(s), or to survey indigenous physicists on the barriers they face. Projects could be proposed from the EC, the DEI Committee or from any part of IUPAP. The DEI Committee retains oversight and provides a broader view input if necessary.

Funding is essential to carry out activities. The DEI Committee would assist in writing proposals and looking for (further) funding. Currently IUPAP gives a generous allocation for the activities of WG5 (compared to what is given to other structures). The possibility of redirecting this allocation or, if possible, enlarging it, will be discussed. Liaising with the VP at Large for Projects and Sponsorship to this end will certainly help.

Physics outside academia and WG16.

As already stated, it is recommended that WG16 be transformed into a Standing Committee on Physics outside Academia with its chair serving as VP at Large on Physics outside Academia in the EC.

Future restructuring initiatives that have not been discussed yet or need further discussion:

Physics Education and liaison with C14.

C14, the Commission on Physics Education, brings together researchers in this field. It produces a newsletter as well as a report in English. Now, in order to have a stronger impact on physics education across the globe, it would be good to “adapt” locally and translate the recommendations. The way in which WG5, Women in Physics, organized the network of Women in Physics across the world could be followed in this case as well. Namely, we could think of some sort of network of national WGs on Physics Education. This possibility will be discussed after the 34th IUPAP GA to be held in October 2025. It might also need a project seeking specific funding.

Physics for Development and C13.

The discussion on how to address this very important issue will be held following the 34th IUPAP GA of October 2025. Several aspects should be considered: whether C13 should stay as a Commission, the relationship with LAAAMP, the possibility of advancing new projects, the relationship with Associated Territorial Members, the possibility of liaising with regional physical societies from the Global South, sustainable development and the relationship with WG21, among many others.

Physics Students

As described before, it would be good to have a representative of the students in the EC. This could be done by creating the position of Vice-President at-large for Physics Students. One option is that the President of the International Association of Physics Students (IAPS) or, equivalently, the Chair of AC5, occupy this position (as long as IAPS continues to be an Affiliated Commission of IUPAP). Perhaps, in that case, it could be a VP from Commission (instead of at-large). Another option is to ask IAPS to propose who would serve in such position, in which case they could submit more than one candidate to be elected at the in-person GA (as the rest of the elected members of the EC). One problem we might face in that case is that our three-year period might be too long for a student. Another option is that IUPAP members submit candidates to be elected at the in-person GA. If IAPS stays as AC5, the student representative on the EC should work together with AC5. The best would be that the corresponding VP be a member of the governing board of IAPS. This issue needs further discussion.

Early Career Scientists.

In the field of chemistry there is the International Younger Chemists Network (IYCN, <https://www.iycnglobal.com/>). IUPAP could try to promote the establishment of a similar network of physicists at early career stages. If such a network is established, a representative of the network should be a member of the EC.

Presidents' Forum.

IUPAC has a Presidents' Forum, <https://iupac.org/presidents-forum/>, where the president of IUPAC and of national chemical societies all over the world meet. IUPAP could have something similar, mainly because in many cases the LCs are not represented by the physical societies, but by the national academies.

Increasing revenue

Nine possible actionable categories to enhance IUPAP's revenue, financial sustainability and impact were identified. After a review of these options based on resourcing constraints and the need to be realistic, it is recommended that IUPAP start with activities that build on existing programs and over time build a revenue stream that can lead to more ambitious revenue raising programs. These activities are in priority order noting that Activities 1 and 2 could be done simultaneously with the appointment of a relevant volunteer to lead the activities to support the IUPAP Executive Council. Activity 2 is linked to a recommendation of the Communications sub group. Activity 3 will require the IUPAP Executive Council to change how conferences are supported.

1. Enhanced Corporate Associate Membership (CAM) Program (Building on Existing Structure)

- **Reality check:** Since CAMs already exist, focus on improving their value proposition rather than creating new tiers.
- **Low-cost implementation:** Create better benefits packages using existing resources. This requires creating an enhanced value proposition emphasizing IUPAP's unique contributions such as links to the global physics community that is estimated to be between 500,000 and 3 million people¹, access to skilled workforce, access to researchers – that is a big market - with research grants to buy scientific equipment and potential to support science diplomacy.
- **Realistic targets:** Aim for 2-3 new CAMs in year one, focusing on companies already engaged with IUPAP
- **Resourcing needed:** Requirements include identification of leader to run this activity, the development of the value proposition and prospectus with pricing, working with IUPAP volunteers to identify companies and existing relationships, engagement and post membership management.

2. Targeted Digital Publication (Minimal Viable Product)

- **Reality check:** Start with a simple quarterly newsletter rather than a comprehensive platform building on the recommendation of the Communications sub-group.

¹ There are varying estimates from Physics Today (2015) saying 1 million, methods of adding up the number of physics professional societies saying about 500,000, and blog <https://physics-network.org/how-many-physicist-are-in-the-world/> which seems like an over estimate of 3 million.

- **Low-cost implementation:** Use existing communication channels and volunteer expertise
- **Realistic targets:** Secure 5-10 equipment manufacturer advertisements for inaugural issues
- **Resourcing needed:** same as for #1. Could be two activities for this team.

Some reflections on the Digital Publication proposal

Right now IUPAP produces a digital newsletter that is distributed via e-mail to the people who subscribe to receive it. As of 2025, there are about 1200 subscriptions. Most of the articles published in the newsletter are related to IUPAP activities and, as such, are of interest for IUPAP members and/or members of the physics community interested in the workings of the Union. A fraction of the newsletter articles originate in the news pieces that are regularly produced to highlight different IUPAP related events and actions. These news pieces are posted on the News and Announcements page (<https://iupap.org/news-announcements/>). The five latest such announcements appear at the bottom of the webpage, <https://iupap.org/>. In summary, currently the target audience of IUPAP's communications is people interested in IUPAP. In order to advance with the proposal of having a digital publication with manufacturer advertisements the target audience should be expanded to embrace the physics community at large. IUPAP cannot compete with other organizations with much larger staff support that produce articles and other news pieces on the most recent physics developments (such as those that appear in Physics Today, Physics World, etc). One of the differentials of IUPAP is its direct involvement with the organization of many of the largest International Conferences on a variety of physics subfields. These conferences could be the source of articles of interest for the physics community at large. Commission chairs should guarantee that their largest (flagship) conferences produce these articles. This obligation should be included in the guidelines that are distributed to the organizers of every sponsored IUPAP conference. Articles on/from the Type D conferences which are organized in developing countries could also serve to highlight the impact of physics and the contribution of physicists in the Global South. Producing the newsletter usually faces the difficulty of counting with enough contributions on time to release each issue. Having one or more invited Editors per issue to streamline the newsletter production was discussed as a possibility, although there were mixed views as to whether such a move would be of help.

3. Conference Revenue Sharing (Leveraging Existing Events)

- **Reality check:** Instead of creating new IUPAP-branded conferences, negotiate better revenue-sharing agreements with existing IUPAP-endorsed conferences
- **Low-cost implementation:** Requires negotiation skills rather than event management expertise
- **Realistic targets:** Secure revenue-sharing agreements with 3-5 existing conferences
- **Resources needed:** This requires a change in approach to supporting conferences from direct grants to commissions to creating the IUPAP Conference Support Scheme that is centrally managed by the IUPAP treasurer. See Appendix 2 for suggested approach.

Some reflections on the Conference Revenue share proposal

This proposal was criticized by various past Commission Chairs. While the idea of returning IUPAP's current \$5-10K level support as seed funding seemed feasible, that of returning a significant portion of any additional surplus seemed unrealistic unless IUPAP could provide an order of magnitude higher funding. Two other aspects were mentioned as well. On one hand, that it is a common practice among various Commissions that any surplus in their Conferences be mostly passed on to the next one. On the other hand, that if IUPAP is to receive a fraction of the surplus, then it should also take the risk of a loss in some years. The advice was to act cautiously in this regard and to use the 2027 IUPAP International Conference on Physics to see all the elements play out for a decision on this matter. In the meantime, we can think of introducing some of these changes (in particular, that of considering IUPAP's sponsorship as seed funding) in the conferences that are associated with Affiliated Commissions.

Appendix 1 – first pass of ideas for revenue generation

1. Corporate Sponsorship and Industry Engagement
2. Conference Revenue and Branding
3. Philanthropy and Value Proposition
4. Monetize Outreach and Educational Initiatives
5. Strategic Advocacy and Branding
6. Advertising and Merchandise
7. Endowments and Legacy Giving
8. Inclusion and Collaboration
9. Enhanced Value Proposition

Appendix 2: Draft IUPAP Conference Support Scheme suggested by the subgroup that looked into this matter:

The IUPAP Conference Support Scheme offers two types of support for IUPAP Physics-based conferences:

1. Seed funding to help conferences cope with initial financial demands, typically \$5k-\$10k, and
2. Financial underwriting where the expectation is that the conference will break even or make a surplus.

The first type of support is to be repaid regardless of the financial outcome of the conference. The second type is offered on a risk/profit sharing basis.

The conference organiser making the funding request must be a financial member of the IUPAP.

Requests for funding should be sent to the treasurer and must include:

1. A statement of the aims of the conference including the scope of material and the involvement of the physics community.
2. A clear statement of what is requested from IUPAP.
3. A full budget showing all expected income and expenditure for different numbers of attendees.
4. A clear statement of what other underwriting or sponsorship arrangements have been made with other organisations.

5. Agreement from the organisers that if IUPAP underwrites the conference IUPAP will:
 - Be fully acknowledged in all publicity
 - Receive regular reports on organisation and budget details from the organisers
 - Only be reliable for the amount initially agreed to by the IUPAP executive or treasurer
 - Receive 50% of any profit made by the conference (if there is more than one underwriter then profit will be pro rata to fraction of original total amount of underwriting).

Communications

1. Database

- IUPAP needs a grassroots level database of the broader community, analogous to membership of APS, DPG, etc, so that our voices can be heard.
- Each IUPAP conference already has its own database. A simple option would be to 1) include a consent box to receive IUPAP communications (emails, newsletter, etc), per GDRP legal requirements; 2) submit such database to IUPAP; 3) have someone at IUPAP maintain it across all Commissions and WGs; 4) showcase an official IUPAP communication package at such IUPAP supported conferences, including QR codes to IUPAP website /newsletter/ social media; 5) feature positive feedbacks from such conference support such as student travel awards in various communications channels. Most of these items can be implemented through the IUPAP conference support as a requirement for the funding.
- Various email lists can be established and used effectively. Besides the existing ones (EC, officers, CCs, Chairs of ACs and WGs, LCs, CAM representatives), lists including all Commission/WG members, the grassroots IUPAP community, could be implemented. Certain updates and announcements could go directly to all unit members without requiring unit chairs to relay. Grassroot IUPAP community-wide communications will be used only on special occasions (not to overwhelm people's inbox). "Speak less", but with a forceful voice. Using e-mail should not be disregarded in front of other communication channels such as social networks. E-mail is still very necessary.

Some reflections on the proposal on Database and mailing lists.

The idea of generating a database based on those who registered to participate in IUPAP's sponsored conferences (especially, flagship ones) is interesting and seems doable. As mentioned before, we currently have a mailing list of about 1200 people who are subscribed to the IUPAP's newsletter. There is a "subscribe" button at the bottom of IUPAP's homepage. Perhaps we can move it further up. It is through these subscriptions that we currently constructed our largest database, which should be expanded. When the website was moved from Singapore to its current location (see below for more details about this), the new website had a login button at the top that was intended for people subscribed to IUPAP's newsletters to access content not accessible to everybody. In particular, we had the idea of having the newsletters of

the current year accessible via this login. We finally removed the button. We did keep the idea of not making the newsletters available online until the end of the calendar year (see e.g., <https://iupap.org/news-announcements/newsletters-of-current-year/>). We don't know if this had the desired effect of inducing subscriptions. Reinstating the login button should be easy, but it is not clear what benefit would produce. As per the mailing lists, we do have the mailing list of subscribers and those already mentioned. There are no mailing lists including all Commission or WG members.

2. Website

- The website needs a complete revamp, as this is one of the most important avenues to materialize our impact. Resources need to be allocated accordingly. The website is very complicated and now it is much more feasible to introduce some changes that can make it more attractive and up to date on a faster timescale.
- Work with web developer to structure the website in an efficient and up-to-date manner:
 - Preserve historical information that do not need to be updated frequently (possibly in the background).
 - High traffic website / user interface: Allow each commission/WG (Units) direct web access to update their activities /news/ awards (say by one designated liaison per Commission/WG, and this can be rolled out first in a few commissions as test beds).
- Generate certain templates with consistent yet lively style and format across IUPAP so that an average liaison without special web expertise can update content in a professional manner.
- Besides the IUPAP IT support that manages the infrastructure, some centralized communications staff is essential, ideally someone who can generate content from elements of information and transform into appealing visuals, oversee/edit contents prepared by various Units as needed.
- Alternatively, each unit could recruit communications-savvy volunteers with technical knowledge in the field (such as students and early-career researchers) to help with the web/social media posting. This could be a format for engaging the younger generation of physicists.
- The website-improvement process might be iterative, until a smooth protocol is established that both maintains the infrastructure security and stability and enables frequent and timely updates of the latest IUPAP activities.

Some reflections on the proposal on the Website

Advancing with a complete revamp not only requires funding, but also someone from within IUPAP who could oversee the changes. This was done in 2021 when the website (mainly based on pdf documents) was moved out of Singapore. At the time Silvina worked with the web developer, Image Online (which was selected based on a compulse of prices) and it was a lot of work. It is not clear who would undertake this

work it at this stage. On the other hand, many of the suggestions are already implemented in the current setting of the website. Namely, the historical information has been preserved: the current website, iupap.org, has links to two archived previous versions. The current website is coded in WordPress and was endowed from the beginning with editing functionalities that allow Commission Chairs to modify the pages associated to their Commissions. This functionality is already in place (only for Commissions, not for WGs or ACs or other parts of the website), although it has never been used. The pages of all Commissions, WGs and ACs have the same structure with the same subpages. Giving access to their chairs (we would have to add this functionality beyond commissions) would imply giving access to these templates and being able to include new content as needed. As suggested in the proposal, we can advance iteratively. In particular, the idea of giving access to the chairs of our structures will be implemented with IUPAP's regular Commissions to rejuvenate their pages. Finally, there is already centralized dedicated staff that handles IUPAP's communications. This is done from the Secretariat at Trieste albeit with very limited resources. We could allocate more funds into that, although it is not clear to what extent we can do it without jeopardizing our situation as a Swiss association.

3. Social Media / Newsletter

- Recruit volunteers, especially younger generation scientists/students. IAPS is a great partner in this endeavor, already provided great insights in this self-study and offered to help.
- Actively solicit contents from Executive Council, Commissions, WGs, etc. This is especially important for social media and newsletter postings which require new contents on certain pace and to ensure sustainability in posting social media content over longer timescales.
- Revamp the delivery, use student-friendly format (such as new layouts, animations and short videos). Some cool Newsletter examples from IEEE Magnetics Society can be found [here](#) (thanks primarily to Dr. Jia Yan Law at Univ. of Seville, created using Flipsnack, together with PowerPoint and Canvas for animation; she has kindly offered to help IUPAP if we want to do something). Need to watch out for the optimization between information density and issue frequency, maybe better to have shorter communications on a regular basis.
- Current IUPAP social media platforms on LinkedIn and Twitter (X) have quickly accumulated ~ 2,000 followers, which is great. They are more targeting the professional community, could be the primary platform for future growth.
- Instagram and Facebook are effective (e.g. IYQ2025), but have somewhat a different vibe, so that contents for LinkedIn /X can't be directly reused. They are targeting slightly younger generation with less formal language/format. They could be secondary platform, resource permitting.

Some reflections on the proposal on Social Media and Newsletter.

As mentioned before, new Conference guidelines will be added to guarantee an influx of interesting physics content from the largest IUPAP sponsored conferences. IUPAP's structures are always invited to submit contributions, but it is not always easy to get them, much less, to get them on time. Bringing in the newer generations is a great idea but, still, the posts should be supervised.

4. General

- Executive Council and each Commission/WG should make it part of the core mission to effectively communicate with the broader community, update its activities on the relevant website, social media and IUPAP Newsletter.
- Coordinating the IUPAP communication efforts while shaping their direction based on the overall vision, mission, and decisions of IUPAP requires one coordinator with a substantial time commitment that is in close communication or part of the Executive Council to provide insights on communication aspects, react to decisions, and address latest matters in the IUPAP communication.
- Form a culture of documenting IUPAP activities and impacts. This information may be deposited through some platforms with brief information describing the events, some pictures and links etc, for the communications team to use/follow up.

Some last general reflections on Communications.

It is important that everybody in IUPAP take communications as part of the Union's core mission and contribute accordingly. Right now the person in charge of overseeing IUPAP's communications and public engagement activities is an IUPAP's officer, who is not only a member of the Executive Council but is one of the people who meet every month to carry out the daily workings of the Union. IUPAP activities are already documented. One issue here is how to share this information. Right now we are mainly using Indico, but the access to many of the documents is restricted to registered users. A more detailed plan on how to document decisions and activities and how to share them with IUPAP members and/or the physics community is currently necessary.