10 December 2025

Action Plan 2025-2026

To advance IUPAP into the future along the lines established in its Strategic Plan, we are carrying out or planning to execute the actions listed in what follows.

IUPAP's rejuvenation

Immediately after the celebrations for its Centenary, IUPAP started a discussion on how to increase its visibility and the impact and extent of its actions. It first advanced with a self-evaluation which was presented to the 32nd IUPAP GA. Deep analyses of IUPAP's structures were performed and various consultations were carried out with them. An external evaluation committee was appointed early in 2024 which produced a report that was presented to the 33rd IUPAP GA held in person in Haikou City in October 2024. Following this GA, all IUPAP members were invited to suggest names to form a rejuvenation task group that would analyze the previous work and make a proposal of changes to be presented for the consideration of the 34th GA which was held in October 2025. The composition of the Rejuvenation Task Group was decided early in 2025. Chaired by IUPAP's president, Silvina Ponce Dawson, it started its work in March 2025 and produced its report with a proposal in late August for the consideration of the 34th GA. The proposal contained suggestions along three lines: restructuring, communications and increasing revenue. The 34th GA approved the suggestions of change which we expect will contribute to advance IUPAP's mission to assist in the worldwide development of physics, to foster cooperation in physics and to help in the applications of physics towards solving problems of concern to humanity. We describe in what follows several actions that we have recently started or are planning to carry out which align with the suggestions contained in the Rejuvenation Task Group's proposal.

Public profile and visibility

IUPAP will continue with its actions to make the physics community more aware of its mission and role in the international promotion of physics and physics education as well as diversity. We describe in what follows some current activities in this regard as well as the plans for follow-ups.

IUPAP-IYQ2025 Photo Contest

In view of the celebration of the International Year of Quantum (YQ2025), IUPAP organized the IUPAP-IYQ2025 Photo Contest to celebrate the beauty of quantum science and technology in all its forms, https://iupap.org/strategic-plan/outreach/iyqst25/iupap-iyq2025-photo-contest/. The photo contest was recognized as an IYQ2025 Global Event and assigned a budget that was used for the prizes. As done for the IUPAP100 Photo Contest, there were two categories: "Beyond our eyes" and "At a glance" with three prizes in each. The winners were publicly announced on October 24, 2025, and were invited to attend the (virtual) GA on October 31st. The winning entries were displayed at the Closing Ceremony of IYQ2025 in Accra, Ghana.

Online colloquia on Physics for Society.

An initiative for public engagement that started in 2025 was the IUPAP-UNESCO Colloquia series on "Physics for Society". Organized with UNESCO, the 2025 colloquia focused on the themes of IYQ2025. The first one, featuring a beautiful talk by the Nobel Laureate, Anne L'Huillier, and the last one, featuring a dialogue between Nobel Laureates Bill Phillips and

Alain Aspect with the moderation of Luis Orozco had more than 700 registrations each and over 300 people simultaneously attending. Five colloquia were organized in total. Besides the opening and closing ones, the series included a talk by Andrew Forbes from the University of the Witwatersrand in South Africa and two roundtable sessions focusing on Synchrotron Light efforts in Africa and on the intersection of industry and the quantum world, respectively. The videos of the colloquia can be found on IUPAP's YouTube Channel, https://www.youtube.com/@IUPAP_Physics. Although this initiative was started within the framework of IYQ2025, the plan is to continue it in the following years under the wider umbrella of the International Decade of Sciences for Sustainable Development (IDSSD). The aim is to bring together leading scientists, industry experts, policymakers and the public in general to establish a transdisciplinary and cross-regional collaboration platform.

Commission Conferences as platforms to increase the visibility of IUPAP within the physics community.

The recommendations of the rejuvenation group include a proposal that will be implemented during 2026. This is the expansion of our current database of physicists using the Commission conferences to reach out to the broader community. To this end we will request that conference organizers include in the registration process a consent box to receive IUPAP communications. We will also produce an official IUPAP communication package that will be provided to the organizers to be showcased at IUPAP supported conferences.

The International Conference on Physics

As part of the efforts to increase IUPAP's visibility within the physics community, the next in-person GA, scheduled for 2027, will be organized in conjunction with an International Conference on Physics. To decide where to have it, a call for expressions of interest was issued by the end of 2024. These expressions were then turned into final proposals through successive rounds of interactions with the bidders. After a final virtual meeting with the contestants, the EC selected the proposal submitted by the South African Institute of Physics (SAIP), in partnership with the Southern Africa Physics Network (SAPhysNet) representing the Southern African Development Community (SADC) countries. The Local Organizing Committee, which includes Igle Gledhill, IUPAP's VP for Membership and Development and Secretary of IUPAP's WG21 on Physics for Climate Change Action and Sustainability, and Rudzani Nemutudi, IUPAP's Associate Secretary General, among its members, has already started to work. The 2027 ICP of tentative title "Physics for regenerative development: equitable wellbeing on a healthy, lively planet" will hopefully be the first of a series of conferences that will bring IUPAP closer to the physics community at large.

IUPAP Newsletter and IUPAP's online presence.

The proposal of the rejuvenation group includes several recommendations on how to improve the impact of IUPAP's communications on all supports. An important aspect is to have defined the physics community at large as the target audience/readership of IUPAP's communications. We expect that the coming years will see improvements in this regard.

IUPAP organization and membership

Structural changes

The proposal of the rejuvenation task group involved various structural changes which were subsequently approved by the 34th GA in October 2025. These changes are being put in

practice and will hopefully be fully implemented by the end of 2026. One of these changes involved the creation of the position of Vice-President at-large for Physics Outside Academia in the Executive Council and the transformation of the current Working Group on Physics and Industry into a Standing Committee under the supervision of this VP. This last change is part of a larger modification which introduces two new types of structures: Standing Committees Under VPs and Standing Committees Under Commissions. The former are created to advance with many of the transversal issues of interest for IUPAP as described later in this document. The second type is created to formalize what has been happening with several Working Groups that have existed for many years which are venues where representatives of research facilities/infrastructure of a given type get together and discuss their future. Provided that their creation is approved by the IUPAP GA in October 2025, Standing Committees under Commissions will have direct links with one or more IUPAP Commissions with the chair or some other member of the Commission serving in an *ex-officio* capacity within the relevant structures of the Standing Committee. Momentarily, the current WGs that became Standing Committees (WG1, International Committee for Future Accelerators; WG7, International Committee for Ultrahigh Intensity Lasers; WG9, International Cooperation in Nuclear Physics; WG11, Gravitational Wave International Committee) will keep their current structure, but they are charged with submitting current or updated versions of their Bylaws or Terms of Reference for the approval of the EC by the end of October 2026. Other organizational changes include redefining the relation with Affiliated Commissions, charging each of the 5 VPs from Commissions on the EC to act as representatives of clusters of Commissions and the transformation of the Working Group on Soft Matter into a Commission in the field. 2026 will see the implementation of all these changes and hopefully, the finalization of the discussions on whether and how to create a new Commission on Quantum Technologies.

Membership

As proposed in the previous action plan, IUPAP will continue the active recruitment of new members. To help with this aim, the EC approved the creation of the Membership and Development Committee. Chaired by the VP for Membership and Development, this is an early example of a Standing Committee under a Vice President. This Committee works in direct contact with the former Working Group on Physics and Industry (now SC on Physics Outside Academia) to approach potential candidates for Corporate Associate Members. It also liaises with other WGs and Commissions to approach candidates to become Associated Territorial Members, the type of membership that was created a few years ago to incorporate territories with relatively small physics communities that IUPAP can help develop. The efforts to this end will be directly interlaced with the organization of activities of community building such as the Physics Summit in the Pacific Island nations that took place in December 2025 which had among its aims identify key needs and priorities for physics in the region and to converge on a way forward.

The efforts to recruit new members will not deter those that are carried out to engage current members more directly into the workings of the Union. The last in-person GA of 2024, the call for expressions of interest to organize the 2027 GA and ICP, the invitation to nominate members of the rejuvenation task group and to discuss the resulting proposal are some of the steps that have been taken to engage current IUPAP members more deeply into the activities and discussions of the Union.

Physics outside academia

The majority of physicists do not work in academia, but rather in environments such as industry and government. The creation of the VP for Physics Outside Academia and of the transformation of the WG on Physics and Industry into a Standing Committee Under a VP has

the purpose of providing a more efficient way to liaise with physicists outside academia and companies with interest in physics.

Early Career Physicists

IUPAP's program of Early Career Scientist Prizes (ECSPs) is well established and prestigious. Almost all Commissions, including Affiliated Commissions, award one ECP per year. In 2024, IUPAP initiated discussions with the journal Frontiers in Physics (https://www.frontiersin.org/journals/physics) to explore the possibility that ECSP recipients could publish mini-review papers in the journal free of Article Publishing Charges (APCs). This possibility was discussed at the EC&CC meeting held in January 2025 and the decision was made to start with a "pilot" inviting the recipients of the then recently awarded C12 (Commission on Nuclear Physics) ECSPs. The outcome of this pilot is yet to be seen. A further meeting with representatives of Frontiers in Physics discussed possible ways to continue this initiative. The idea of producing a special issue, IUPAP ECSP, in the journal in 2027with mini-review contributions from the most recent recipients of IUPAP's ECSPs was discussed, again, with the APC waived. Given that there are over 20 awardees per year (sometimes "clustered" in some years) it is reasonable to expect that at least 10-15 of them would agree to do it and the special issue could be produced. This could be repeated for the next in person GA and so on, creating a corpus of short contributions on recent physics developments by the newest generations of physicists, recipients of IUPAP's ECSPs. This would give visibility to our Union and to this very important line of prizes.

Another initiative to increase the role of Early Career Physicists in the workings of the Union is inspired in the actions of the International Union of Pure and Applied Chemistry, IUPAC. Namely, the International Younger Chemists Network (IYCN, https://www.iycnglobal.com/) exists which also acts as Standing Committee of IUPAC. IUPAP could try to promote the establishment of a similar network of physicists at early career stages. The efforts in this regard that have been advanced in the area of High Energy Physics could help to this end. If the network is established, a representative of the network could be a member of the EC and the network could act as an Affiliated Commission as well.

Affiliated Commissions

The proposal of the rejuvenation task group contained a set of recommendations on how to redefine the relationship between IUPAP and its various Affiliated Commissions. During 2026 we plan to work on drafting, discussing and signing MOUs with each of the organizations that are IUPAP Affiliated Commissions to redefine this relationship. We describe in what follows some of the plans that we have for the relation of IUPAP with the International Association of Physics Students, IAPS, which is IUPAP's AC5.

Physics Students

We have already advanced with some of the recommendations of the rejuvenation group's proposal. In particular, we have agreed that IUPAP will sponsor a joint IUPAP-IAPS Prize which will give the same monetary award and similar certificate as the ones that are given to recipients of ECSPs. This prize, named IUPAP-IAPS Outstanding Student Award, will reward academic excellence and community building. During 2026 we will discuss in more detail other aspects, such as the commitment of IUPAP to provide financial support for the yearly held International Conference of Physics Students (ICPS) and the PLANCKS competition, establishing clear guidelines as to how IAPS should proceed in case they wish to request financial support from IUPAP for some other activities and other matters related to the rights and dues of IAPS as part of IUPAP.

Presidents' Forum

The International Union of Pure and Applied Chemistry, 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.

IUPAP relations with other organizations

Presence in international bodies

IUPAP participates in several international bodies. This participation has been more or less active depending on the body. Sometimes it is not clear what IUPAP expects from having a representative in certain bodies. This affects the communication between the Union and its representatives and can even produce situations in which the representatives lose all contact with IUPAP. The President Designate produced a proposal that seeks to correct this problem which we expect to put in practice in the near future. We list in what follows the international bodies with which IUPAP is directly engaged. This does not include partner organizations and unions with which different collaborations are carried out.

-International Science Council (ISC). IUPAP is a very active member of the ISC, an organization which brings together 40 international scientific Unions and Associations and over 140 national and regional scientific organizations including Academies and Research Councils. As a Category 1 member of the ISC, IUPAP participates regularly in its GA and other ISC (virtual) meetings, particularly, in the Roundtables of Category 1 members, and it is invited to vote or give advice on various issues. IUPAP is usually represented by its President in all these activities. IUPAP liaises with other Category 1 members (International Scientific Unions) to propose candidates for the governing board of the ISC which was elected in 2024. In this way, the first Chair of IUPAP Working Group on Women in Physics, the Brazilian physicist Marcia Barbosa, was elected Vice President for Freedom and Responsibility in Science. In 2025, IUPAP's President Elect, Sunil Gupta, was selected Member of the ISC Committee for Membership. In 2026 we are planning to submit the nomination of IUPAP's Past President, Michel Spiro, for the position of Vice-President for Science Programs. This proposal has the wide support of other Category 1 members (Scientific Unions).

-Committee on Space Research (COSPAR). Established by ICSu (now part of ISC) in 1958, it initially played an important role as an open bridge between East and West for cooperation in space. When this role became less prominent COSPAR started to focus on the progress of all kinds of research carried out with the use of space means. Pietro Ubertini (former chair of IUPAP Commissions for Astrophysics, C19) is currently one of COSPAR's vice-presidents. COSPAR will have its GA in Florence, Italy, in 2026. IUPAP's President and President Designate will attend the meeting where we expect to sign an MOU that will revamp and strengthen the liaison between both organizations.

-Scientific Committee on Solar-Terrestrial Physics (SCOSTEP). Established by ICSu in 1966 as the Inter-Union Commission on Solar-Terrestrial Physics (IUCSTP), in 1978 it became a Scientific Committee of ICSu charged with the long-term responsibility of promoting international interdisciplinary programs of finite duration in solar-terrestrial physics. IUPAP has a representative on the SCOSTEP Bureau, the communication with this representative is pretty much non-existent. This will be revised within the framework of the guidelines that we expect to adopt soon.

-Scientific Committee of Problems of the Environment (SCOPE). Currently SCOPE is a worldwide network of scientists and scientific institutions which develops syntheses and reviews of scientific knowledge on current or potential environmental issues. SCOPE was originally established as a committee by ICSu and was previously an ISC Affiliated Body. The information on SCOPE's website about the IUPAP representative on it is clearly outdated. The relation of IUPAP with SCOPE needs to be regularized.

-ISC's Committee on Data (CODATA). IUPAP is member of this committee which aims to promote global collaboration to improve the availability and usability of data for all areas of research. CODATA works also to advance the interoperability and the usability of data: research data should be intelligently open or FAIR**.** CODATA achieves these objectives through a number of standing committees and strategic executive led initiatives**,** and through its Task Groups and Working Groups**.** CODATA had its last GA in October 2025. IUPAP nominated the current chair of WG20 on Open Science, Alex Hansen, as its Delegate at the GA. Alex gave a report on CODATA at the IUPAP EC&CC meeting that was held immediately after the CODATA's GA. There are various other persons related to IUPAP who serve on different bodies of CODATA, but there is not a regular communication or reports on what they do. Cyrus Walther, former chair of AC5 (Affiliated Commission of Physics Students) who is also a member of the SC on Physics Outside Academia, was nominated by IUPAP to serve on CODATA's Executive Committee for 2023-2025 and again, for 2026-2027. He was both times elected. He has now engaged more strongly to bring people from with the IUPAP community to take part in some of CODATA's groups. In particular, IUPAP has recently been invited to nominate someone to be part of the Digital Representation of Units of Measurement (DRUM) Task Group. We have approached C2 (Commission on Symbols, Units, Nomenclature, Atomic Masses and Fundamental Constants) to help us identify who could serve on this group. There are other TGs where having IUPAP representatives would be of interest. One of them is the "Fundamental Physical Constants" TG (TGFC) which aims to periodically provide the scientific and technological communities with a self-consistent set of internationally recommended values of the basic constants and conversion factors of physics and chemistry based on all relevant data available at a given point in time. Peter J. Mohr, who was chair of C2 in the past, is a member of TGFC. We should try to engage someone currently more closely related to IUPAP in the activities of TGFC.

-Joint Committee for Guides in Metrology (JCGM). The tasks of the JCGM are to maintain and promote the use of the *Guide to the Expression of Uncertainty in Measurement* (known as the GUM) and the *International Vocabulary of Metrology – Basic and General Concepts and Associated Terms* (known as the VIM). The JCGM has taken over responsibility for these two documents from ISO TAG 4, who originally published them under the auspices of the BIPM, IEC, IFCC, ISO, IUPAC, IUPAP and OIML. The JCGM operates through two working groups: the JCGM-WG1, with responsibility for the GUM, and the JCGM-WG2, with responsiblity for the VIM. IUPAP is a member of JCGM and as such it participates in its GA. Usually it is represented by the Chair of IUPAP's Commission on Symbols, Units, Nomenclature, Atomic Masses and Fundamental Constants, C2. Eric Shirley (Vice-Chair of C2) represents IUPAP on JCGM-WG1. It is important to note that the Director of the Bureau International des Poids et Mesures (BIPM) is an *ex-officio* member of C2. C2 was relatively inactive until recently but has become quite active under the leadership of its new Chair. In particular, is advancing with the production of the SUNAMCO "Red Book", the latest version of which dates back to 1987.

-Standing Committee for Gender Equality in Science (SCGES). IUPAP is a founding partner of this committee which grew out of the Gender Gap in STEM project and now has over 25 members. IUPAP is represented by the VP for DEI (Gillian Butcher) and the Associate Secretary General (Rudzani Nemutudi) on SCGES. Gillian participates in the Annual Report

Working Group. This Committee is very active and we regularly have reports on their actions that are presented by the VP for DEI.

Interdisciplinary collaborations and Inter-Union activities

Boundaries between physics and other disciplines have become less rigid and science has become more interdisciplinary than ever. The decision to establish the Interdisciplinary Early Career Scientist Prize is a reflection of this. Solving the current challenges of humanity, on the other hand, requires the concerted work of people from different backgrounds and disciplines. The International Year of Basic Sciences for Sustainable Development, IYBSSD, celebrated in 2022-23, and its follow up, the International Decade of Sciences for Sustainable Development, IDSSD, which will be celebrated through 2033, are two initiatives that involve the collective participation of organizations covering many different disciplines. As for IYBSSD, IUPAP is playing a key role for the advancement of IDSSD. In particular, IUPAP Past President, Michel Spiro, and the Chair of IUPAP's WG5 on Women in Physics, Prajval Shastri, are members of the Steering Committee of the Earth-Humanity Coalition, EHC, an organization that was created for the successful implementation of the Decade's goals. IUPAP was designated the operational host of the EHC in 2024. This will be maintained through the end of 2026 as the EHC establishes its own operational structure.

The ISC provides a platform where interdisciplinary collaborations can be nurtured. In particular, within the meetings of its Category 1 Members (which are international scientific unions), we proposed to produce joint reports collecting the most recent developments in (some of) the disciplines covered by these unions that could contribute to the advancement of the UN Sustainable Development Goals (SDGs). This project stemmed from the discussion we had during the 33rd GA held in person in China in October 2024. A Working Group was set up that will first organize a series of online interdisciplinary roundtables which will constitute the basis for the reports. We have agreed to start discussing the issue of Artificial Intelligence covering the following aspects in a total of four roundtables in 2026:

1) *AI and science education.* Unions will be invited to suggest possible participants to discuss the impact of AI on teaching and evaluating their disciplines. SDG addressed: quality education.
2) *AI and science research*. Unions will be invited to submit names of possible participants to discuss the impact of AI on the research within their disciplines. SDGs addressed: reduced inequalities, partnership for the goals.
3) *Efforts to develop AI initiatives at a regional and/or national level.* National academies (Cat 2 and other category ISC members) will be invited to submit names. Specific academies will be approached to guarantee their participation trying to cover different regions. SDGs addressed: reduced inequali0es, gender equality.
4) *AI ethics and regula6ons, especially for scientific research and education.* We will ask the ISC governing board for names, as well as all Unions. SDGs addressed: strong institutions, partnership for the goals.

The way to move from the webinars to the elaboration of the reports will be discussed at a pre-meeting forum that we proposed to organize with fellow Unions before the ISC Midterm Meeting & Beijing Science Dialogue: 'Science in a complex world – Science for a better future' in October 2026.

As part of our strategy to strengthen our relations with COSPAR, together with the authorities of COSPAR and of the International Astronomical Union, IAU, we have also proposed the organization of a one-day symposium on Space Science to be held during the ISC Midterm Meeting & Beijing Science Dialogue in October 2026. These meetings offer a unique opportunity to liaise with representatives of other scientific unions and organizations as well as with key stakeholders in Space Science research to learn about their current plans and establish possible pathways to strengthen collaborations. The Chair of IUPAP's Commission C19 on Astrophysics,

Shuang-Nan Zhang (Institute of High Energy Physics, CAS), IUPAP's President Designate and former Chair of IUPAP's Commission C4 on Astroparticle Physics, Sunil Gupta, and Pietro Ubertini, former Chair of IUPAP's Commission C19 and chair of the Local Organizing Committee of the 46th Science Assembly of COSPAR to be held in August 2026, are also directly involved with the organization. Prof. Chi Wang, director of the National Space Science Center, CAS, and leader of the space science program of China, and Prof. Ji Wu, President of the Chinese Space Science Society, have agreed to participate in the symposium.

In February 2026, at the closing ceremony of IYQ2025 in Accra, Ghana, UNESCO launched the Global Quantum Initiative for Sustainable Development (GQI) of which IUPAP has agreed to be a founding partner. GQI is a three-year multilateral process and framework for action that seeks to provide a collaborative platform through which UNESCO Member States, scientific institutions, industry actors, and other stakeholders can co-develop strategic priorities, exchange knowledge, and jointly shape inclusive and forward-looking global guidelines with the aim of preventing the emerging quantum divide from solidifying into long-term structural inequities. It is expected that GQI will produce a strategic, widely agreed living document, the Global Quantum Agenda (GQA), with shared principles. We expect that IUPAP will play a very prominent role in this global discussion. To help give visibility to this initiative, we have also proposed the organization of a cross-cutting science policy session on QST at the ISC Midterm Meeting & Beijing Science Dialogue of October 2026.

New developments in established activities

International collaboration as a driver for peace: free circulation, accessibility, advocate to prevent nuclear war

IUPAP has long worked to ensure that the interaction between physicists from different countries, which is key for the progress of physics, can continue even when relations between the countries' governments are strained. In the present international climate this activity is as important as ever. For this reason, it will continue to offer the IUPAP affiliation to contribute to the widest participation of *bona fide* scientists from all over the world in the international scientific arena. It has participated (and plans to continue to do so) in roundtables and activities to discuss these issues and has signed statements and declarations accordingly.

At the ISC's GA that took place in January 2025, IUPAP presented a resolution on the free circulation of scientists and the problems with visas. Although the GA preferred not to issue a resolution on the matter, it did mandate the ISC Governing Board to take swift measures about it. In the meantime, a letter was produced with the signature of over 20 International Scientific Unions which is an appeal to immigration officers to consider favorably the visa applications of *bona fide* scientists. We yet have to define how we are going to share it. We will advance with this in the following months.

One of the consequences that the current existing crises produce is the displacement of people, among them, scientists who confront the impossibility to return to their home countries and relocate with precarious working conditions and uncertain life futures. A statement was recently signed calling the attention to this issue and stressing the need to reconsider the understanding of the current internationalization in higher education in a way that capitalizes on the expertise and contributions of displaced scholars. The statement also expresses the need to promote preventive measures—such as networks, structures, and support organizations—rather than relying solely on reactive responses. We are planning to discuss possible measures in this regard with other relevant actors and promote the creation of these networks. This could be the first project that the Forum of Presidents of Physical Societies could work on.

In August 2025, the IUPAP EC decided to sign the Nobel Laureate Assembly Declaration for the Prevention of Nuclear War. On July 14-16, the Nobel Laureate Assembly for the Prevention of Nuclear War took place in Chicago, https://nobelassembly.org/ . At the end of the meeting a declaration was issued which was signed by many Nobel Laureates as well as nuclear experts, https://nobelassembly.org/declaration/. In August, the EC approved that IUPAP added its signature to this timely and relevant declaration.

Commission on Symbols, Units, Nomenclature, Atomic Masses and Fundamental Constants, C2

C2, the oldest Commission of IUPAP was classified in the External Evaluation report as "cross-cutting" and playing a role in the management of the discipline. This raised the question of whether it should stay as a Commission or be transformed into another type of structure, a discussion that we decided to postpone to after the 2025 GA. C2 had not been very active in recent years. However, the situation is currently changing. The new C2 Chair has resumed the production of the SUNAMCO "Red Book" which "has for nearly a quarter of a century provided physicists with authoritative guidance on the use of symbols, units, and nomenclature". In the report presented to the 2021 GA, the Commission mentioned that C2 was updating the 1987 version of this book, something that was considered "particularly timely in view of the recent redefinition of the SI". The Chair of C2 as well as the closely related Working Group on the Newtonian Constant of Gravitation, WG13, made presentations on their advancements at the EC&CC meeting of October 2025 which offered very positive perspectives for these two structures. For the time being, they will remain as they currently are.

Future development in strategic areas

Physics education

C14, the Commission on Physics Education, brings together researchers in the field and regularly produces a newsletter as well as a report in English. 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 envisage organizing a network of national WGs on Physics Education. This possibility will be during 2026.

Sustainability and physics for development

The discussion on how to address this very important issue will be carried out in the near future. Several aspects must be considered: whether C13 should stay as a Commission, the relationship with the Light sources for Africa, the Americas, Asia, Middle East and Pacific Program (LAAAMP), the relationship with Associate Territorial Members, the possibility of advancing new projects and of establishing stronger liaisons with regional physical societies from the Global South, how to better address the issues related to sustainable development and the relationship with the Working Group on Physics for Climate Change Action and Sustainability, WG21.

In the meantime, IUPAP will continue to support conferences, schools and workshops in developing countries. The Commission on Physics for Development (C13) will assist IUPAP in cosponsoring at least three workshops per year in developing countries. It will also be

directly involved with the management of the Light sources for Africa, the Americas, Asia, Middle East and Pacific Program (LAAAMP) in collaboration with partner organizations. It is worth mentioning that IUPAP has recently brought the International Union of Pure and Applied Biophysics, IUPAB, into LAAMP and has also invited IUPAC to be part of it, a possibility that is currently being analyzed by this Union. On the other hand, thanks to the efforts of the VP for Special Projects and Fundraising, new advanced light source facilities have joined LAAAMP.

It is expected that new projects be defined and carried out in the near future. The Physics Summit in the Pacific Island nations mentioned before is one such example. This two-day meeting which was co-organized with UNESCO and was followed by a bootcamp for budding entrepreneurs on physics for sustainable Pacific economies and physics day for high school students.

We recall here that IUPAP was the union which led the mobilization for the declaration of the International Year of Basic Sciences for Sustainable Development, IYBSSD, which was celebrated in 2022-2023. The success of IYBSSD led to the proclamation by the UN of the International Decade of Sciences for Sustainable Development (IDSSD), to which IUPAP is already collaborating as described elsewhere.

Diversity, equality and inclusion

Following the recommendation of the Rejuvenation Task Group, a Standing Committee on Diversity, Equality and Inclusion (DEI) was created with the VP at-Large for DEI as its Chair. During 2026 we expect to advance with setting up this Committee, defining its relation with Working Group 5 on Women in Physics and discussing the various aspects of diversity, equality and inclusion that it will address besides gender. The proposal is that the DEI Committee will prioritize areas and might eventually promote the creation of Working Groups to carry out specific DEI tasks or projects. Possibilities in this regard are to review IUPAP's online presence for accessibility and recommend solution(s), or to survey indigenous physicists on the barriers they face.

Ethics and collegiality

As for the Working Group on Physics for Industry, the Working Group on Ethics, WG18, was transformed into the Standing Committee on Ethics and Collegiality to be overseen and chaired by the VP for Ethics and Collegiality. As advised by WG18, there are various standing and emerging issues, beyond research integrity, that the SC should look at. These include conflicts of interest, policy statements on critical matters of technical nature as well as statements on issues with political implications. 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. We expect that all these aspects, as well as the organization of the Committee will be discussed and started to be implemented in 2026.

International collaboration: IUPAP as a neutral venue for the interaction of key stakeholders in specific areas

IUPAP has a long tradition of providing neutral venues for key stakeholders in specific areas from all over the world to come together, exchange information and discuss the future. This has happened, in particular, with the Working Groups that have recently been transformed into Standing Committees Under Commissions (WG1: International Committee on Future Accelerators, WG7: International Committee on Ultrahigh Intensity Lasers, WG9: International

Cooperation in Nuclear Physics and WG11: Gravitational Wave International Committee. Namely, these SCs as well as the newly created Standing Committee on Major Neutron Facilities, provide a platform for the discussion, at a global scale, among key stakeholders involved with existing, new and planned research facilities or infrastructure of interest for the physics community to better coordinate plans and inform the scientific community of the opportunities they offer. Promoting and hosting these SCs, the IUPAP is fulfilling its aim of strengthening international collaboration. The facilities or infrastructure of interest for the physics community do not limit to those covered by the existing SCs. To this end, the 34th IUPAP General Assembly of October 2025 created the Working Group for new IUPAP Standing Committees with the following mandate:

- to identify facilities and infrastructures of interest for the physics community not currently covered by IUPAP's existing Standing Committees under Commissions (e.g., fusion);
- to liaise with the relevant stakeholders and analyze the feasibility of creating Standing Committees under Commissions to include some of those facilities;
- to submit the proposal for the creation of new Standing Committees under Commissions in the areas they consider would be relevant for the physics community including in the proposal a draft for the composition of SC.

Through the creation of new SCs of this type it is expected that IUPAP will enlarge its impact on the global physics community.

International collaboration: a new framework for the relationship with CERN and with UNESCO

In November 2021 the Conseil Européen pour la Recherche Nucléaire (CERN) and IUPAP signed a Memorandum of Understanding establishing a framework for the collaboration between both organizations. The agreement ended in November of 2024, and it was not renewed. IUPAP started talks with the new directorship of CERN who entered office in January 2026, to discuss the possibility of establishing a new agreement. Given the longstanding relationship between the parties, their shared views and the complementarities of their endeavors, it is expected that a new MOU will be signed soon.

The collaboration with UNESCO in the organization of the IUPAP-UNESCO Colloquia on Physics for Society and the partnership on the UNESCO led Global Quantum Initiative have strengthened the relations between our Union and UNESCO. To further facilitate this interaction, we will investigate the possibility of making IUPAP become an official NGO of UNESCO.