

International Science Council (ISC)

Activities' Report - Year 2022

Deputy Representative Augusta Maria Paci

1. Introduction

The International Science Council (ISC) is a non-governmental organization with a unique global membership that brings together 40 international scientific unions and 140 Academies of Sciences and Research Institutes and, since 2022, young scientists scientific associations. ¹.

CNR is full member of ISC established in 2018, built upon the previous ICSU and ISSC (International Social Science Council) memberships.

ISC promotes worldwide the values and principles of global science for the benefit of society. The ISC mission is “to act as the global voice for science”. ISC promotes science as a global public good for humanity development and operates to mobilize scientific and economic resources to respond to global challenges as depicted by the 17 SDGs of the United Nations to target 2030 Agenda. ISC promotes interdisciplinary collaboration and dialogue among scientists from all disciplines and all countries to convey expertises, sound opinions and to stimulate thinking ahead for global solutions. Through specific cross-cutting actions, ISC aims to overcome science inequalities, to promote inclusion and participation in the global world and for this goal increased activities for establishing a synergy with the United Nations and for building partnership international organizations and research institutions. ISC headquarter is based in Paris.

In 2022, ISC developed new modalities for members' awareness and involvement in line with the three-year Action Plan 2022-24, and with the initiatives set up by the Governing Board² elected in 2021 during the second ISC General Assembly, as reported in the ISC Activity Report 2021 (par.6.)

ISC works through Committees of experts of high-level international profiles and Group of experts nominated by ISC and proposed by Members in response to Calls for Nominations. The task of this Committees is to convey insights and key comments into international projects participated by ISC.

ISC activities are supported by an efficient communication and information system managed by the ISC Secretariat. By December 2022, the Chief Executive Officer, Salvatore Aricò, was appointed. This effective ISC communication system enables to qualify and characterize the prompt dissemination of ISC initiatives. Particularly, during 2022, ISC intensified the international dialogue within the multilateral system, mainly towards the United Nations.

2. Main activities carried on by ISC during 2022 relevant for Italy and for CNR

CNR Deputy Representative accomplished several ISC duties and activities for workshop, survey, project presentation and validation, members' sessions, such as:

- attendance to Knowledge Sharing Session online
- approval of candidatures of new members
- attendance to online meetings held by ISC in partnership with United Nations Agencies
- attendance to the Euro-ISC Annual Meeting in London ³
- provision of information upon request of the ISC Secretariat

In particular in 2022 with regard to the Knowledge Sharing Sessions, the Deputy Representative Paci participated to two online meetings dedicated to members and chaired by ISC President Gluckman. These periodic meetings give the opportunity to have a dialogue and receive an update about the launch of ISC key actions approved by the Governing Board. This periodic dialogue on topics gathering questions and suggestions is very positive for fine-tuning.

¹ <https://council.science/about-us/>

² <https://www.cnr.it/it/organismi-scientifici-internazionali/relazione/427/paci-report-2nd-isc-general-assembly-eng.pdf>

³ <https://euro-isc.org/>

Regarding the Euro-ISC Group Management Board, the Deputy Representative Paci participated as CNR Member to the organization of the 5^o annual meeting on invitation of the Royal Society and of the British Academy and held on the 12-13 ottobre. This Annual meeting is structured in two parts: the Business Meeting chaired by the President and reserved to the discussion among members of the Management Board and the Science Meeting with panels of invited speakers dealing with selected key topic areas.

This 5^o annual meeting focused on the topic Science Based Advice, a priority ISC topic, in order to highlight key elements and the role of the EU members expertise in the perspectives of designing of the interface between ISC and the United Nations General Assembly and Agencies.

This Meeting was attended by representatives of important Scientific Unions and by ISC representatives. In particular for ISC, Alison Meston and Mathieu Denis actively participated, and Mathieu Denis delivered an interesting talk to introduce Science-Based Advice.

3. Activities carried on by Augusta Maria Paci within the International Organism during 2022 and impact on the Italian scientific community

During 2022 Paci brought forward ISC activities in collaboration with the CNR Unit International Relations.

Overall, the scope was to reinforce the action started in 2021 in order to increase awareness on ISC activities within CNR. To this end, Paci intensified the collaboration with the CNR scientific board of Italian chemists. The invitation of Paci⁶ to the meetings of CNR NAO-IUPAC National Commission meetings enabled the rising of common interests and facilitated brainstorming and synergies to shape and to bring forward proposals. A very successful example of this collaboration came out in response to international events and initiatives where both organizations ISC and IUPAC were engaged, such as the International Year of Basic Science for Sustainable Development (IYBSSD 2022)⁴. 0

The shared participations increased the visibility and the follow on for the CNR scientific network and national community. The actions shared the main ISC message “Science common good”. It improved the involvement of CNR and other Italian researchers who delivered scientific contributions to target several SDGs and sustainable development.

These scientific inputs were also delivered in relation with cross-cutting policy initiatives ISC such as: Gender Equality Plans, SDGs campaign, mainly focusing Chemistry and the discoveries for societal progress.

In particular, regarding IYBSSD2022, the one-day event was dedicated to Alessandro Volta “The Legacy of Alessandro Volta and the Great Challenges of Humanity: Past and Future of Electrochemistry”. This event focused on electrochemistry and targeted mainly students and civic society in Italy. The occasion was designed to drive the public into an ideal trip from the roots of electrochemistry, opened by the great discovery of the Italian eminent 00scientist Alessandro Volta, to the present and future of this field of chemistry, crucial to address the energy transition and climate change mitigation. The symposium took place in Como on 24th October 2022, birthplace of Alessandro Volta, targeting a sensitive and active territory for innovation, internationalization, and sustainable growth. Both the President of ISC Prof. Gluckman and the President of IUPAC,⁶ Prof. Martinez welcomed this Italian symposium in their respective introductory video addresses⁵. The symposium was organized in collaboration with the University of Insubria and other important sponsors, among which the Italian section of the Royal Society of Electrochemistry. CNR participated with the Department of Chemical Sciences and Technologies and with the Institute ICCOM-CNR.

This event was also supported by the IUPAC Committee of CHEMRAWN focusing World Needs with a dedicated project that included Paci among the project’s members⁶

The second type of effort put in place in 2022 aimed to disseminate and to connect potential interested CNR researchers in events participated by ISC. This aimed both to notify ISC about the availability of the competences of the CNR scientific network and to provide CNR experts the opportunity to interact with the ISC team on specific subjects with related ISC Committees.

Another example of **collaboration effort was in support the UN SDGs campaign**. To do this relevant scientific activity, Paci sought the collaboration of the CNR NAO IUPAC Italian Young Observer Group to take part to the Global Conversation on Sustainability on 25 September 2022, a joint project of IUPAC and

⁴ <https://www.iupac.cnr.it/>

⁵ https://w3.ateneo.uninsubria.it/azureStreaming/2022_eredita_volta_2022_10_240

⁶ <https://iupac.org/project/2022-018-1-021/>

IYCN. The International network of Young Chemists (IYCN) is a member of IUPAC and of ISC. The Italian Group of IUPAC Young Observers prepared a Youtube video, which was released on the celebration day and is available online. The video is structured in a way that each laboratory gets its relevance for meeting a selected SDGs and offers a great visibility of the laboratories driven by Italian researchers ⁷.

A third type of effort was dedicated to respond to the ISC new tool **Call for Nominations** of experts to enable Members to nominate experts that hold specific competences, an international profile and are interested in Working Groups for commenting in a short period report related to international projects or initiatives where ISC is involved.

In 2022, CNR responded to the following two Calls for Nominations:

- 1) **Call for Nomination per la Review of the Global Sustainable Development Report 2023 (GSDR)**. The CNR submission name of Augusta Maria Paci was accepted. The Report is still under embargo. ISC appreciated the work done.
- 2) **Call for Nomination for the preparation of the key themes to the UN Water Conference 2023**. CNR nominated dott. Antonio Lo Porto of IRSA CNR, appreciated by ISC. Thanks to this, Lo Porto was entitled to attend the UN Water 2023 Conference and released the related ISC Policy Brief. ⁸

4. Evaluation of the participation in terms of benefits and membership cost

In the period 2019 -2022 due to the pandemic restrictions, ISC made a deep renewal of the organization. During 2022, the last year of this CNR representation, as reported, efforts tried to increase benefits from the CNR membership, and in particular aimed at:

1. **Improve to qualify within ISC the CNR competences** by exploiting the new modalities set up and advancing events proposals to the ISC Secretariat.
2. **Increase the synergy at CNR level** by involving the National Commission for IUPAC in joint activities for meeting ISC-IUPAC regarding sustainable development.
3. **Address CNR researcher to attend** ISC virtual events on cross-cutting themes.

The gain of benefits requires to consider that currently many international activities are developed at bilateral and multilateral level by the ISC members and ISC is well aware of this. However, ISC is concentrating in building a special profile for speaking on “global science” and for interfacing the multilateral system with its organization such UN General Assembly and its Agencies.

For this⁶, interdisciplinary initiatives can be started to maximize the role of both science and society. In the new course, ISC is shaping its new profile as “the Umbrella Organization for Science”.

In this position, ISC can offer its members more opportunities for visibility, participation, integration and influence of science messages that can also generate funding for global science actions.

The ISC three-year programme, the reporting material, the active participation and the continuous update on projects that are aligned with United Nations enable members to bring in project results and competences to process messages addressing policy and decision-makers for keeping the value of science for progress and prosperity.

In this sense, in the coming years, CNR participation to ISC should continue in order to increase the capacities, to exploit opportunities coming from this global forum driven by United Nations and adding value to national and European science.

In order to further develop a fruitful relation with ISC, CNR could improve the communication to involve CNR researchers with outstanding international and European profiles and wishing to act at global level. The collaboration between Delegates and the Unit of International Relations is central to implement this procedure. For specific events, the CNR President as well as other Italian scientists of the Accademia dei Lincei can be of great value to enhance Italian messages in building the voice of science and for specifying variants of concerns.

⁷ <https://www.youtube.com/watch?v=sRclYbfhyKE&t=193s06>

⁸ <https://council.science/publications/water-policy-brief/>

In practice, in 2022, ISC Secretariat through the website and newsletter supported very well the membership and disseminated news of CNR international events to the ISC global membership. Regarding the cost of the fee a very small reduction was approved.

5. Evaluation of Italians' attendance and how to improve interest and involvement/

As said, it is fundamental to improve and increase the participation of the CNR scientific network to ISC activities. To this end, on specific ISC opportunities, it can be very effective to engage CNR Departments for approaching international project leaders as well as engaging the CNR Delegates to the Scientific Unions. Regarding the Scientific Unions, the ISC Delegate may be invited to present ISC activities by the interested National Commissions. There may exist international events within scientific Union involving CNR where also ISC is or can be involved.

As reported, a collaboration for a common action was carried on during 2022 with successful results among the Commission of the IUPAC-NAO CNR, the Union IUPAC and ISC and CNR Delegate. This synergy facilitates on cross-cutting themes to achieve successful collaboration, results and mutual benefits that are unachievable at the level of a single organism or institutions.

Considering that ISC plan to increase the role of Unions, CNR as Member of the most important ones could inform and engage the respective Delegates to build an active Italian networking. The ISC President Peter Gluckman could be approached. The result could also aim to synergies between the CNR Delegates and the Boards of the Scientific Unions and Academies of Sciences, in order to increase the visibility of emerging Italian experts.

6. Italian experts with important roles within ISC or within related Commissions and Programs (if known)

The two Italian representatives elected in 2021, both in 2022 actively took part to the ISC activities: prof. Maria Paradiso⁹ is member of the Governing Board in representation of IGU/UGI and Augusta Maria Paci in representation of CNR within the Euro-ISC Management Board.

Regarding the Euro-ISC Group, this is composed by 49 Academies of Sciences and Institutions based in Europe and aims to focus a relevant theme of ISC to activate a reflection from the Institutions based in Europe. The Management Board meets yearly on invitation made by a member institution.

As written above in § 2, Paci attended the 5th annual meeting held in London 12-13 October 2022 hosted by the Royal Society and British Academy. The event was structured in two meetings: a Business Meeting only for the Management Board and a Science Meeting opened to participants from Unions and Institutions. This was formed by two panels with invited speakers: the first panel concentrated on "Science advice and sustainability", while the second panel on "Crisis preparedness and the challenges of science advice". This event highlighted relevance and expertise of science organizations in Europe in Science Advice and focused recent experiences in order to better face the next pandemic.

The task of the Management board is to try to develop awareness among the members and to link actions to the global ISC outlook, including collaboration and synergy among members.

7. If Union with CNR Commission, short summary about the 2022 CNR Commission activities

There is no Italian Committee for ISC. However, during 2022 Paci maintained contacts with the Italian Academy of Science Lincei. There is interest to consider possible collaboration to valuable relevant proposals related to ISC actions.

8. Notes

ISC is a peculiar international organism that is not addressing any disciplinary area and with a global community. For this nature, it may meet interests of the CNR Departments. Presently ISC Delegates are from the Department of Chemical Sciences and Materials Technologies.

⁹ <https://www.cnr.it/it/news/10659>

During 2022, as reported, Paci intensified the successful collaboration with the National Commission NAO-IUPAC CNR. The efforts and the results of this collaboration that involved CNR researchers and experts in events and activities under IUPAC and ISC headings, were highly appreciated by the IUPAC President, by ISC President and by CNR. Web-information and papers have been published regularly in order to increase the communication of these activities.

9. Conclusions

In conclusion, having presented main activities carried on in 2022 which show CNR scientists' involvement and commitment and events successfully completed, it is wishful to observe in the next term an increase of visibility of CNR in this renewed ISC as well as the possibility to access emerging opportunities at global level.

This could be facilitated both due to the ISC dynamic approach to membership through new interactive modalities and partnership with members. The intensification of scientific activities in the last twenty years, carried on by research Institutions and Unions, shows multiple interconnections. In this context, ISC wishes to strengthen and to accelerate the grow of a collective sense-making process to face awareness, resources and appropriate global science-based policies for research and innovation to meet the challenges ahead.

In the next years, therefore, the support of the CNR scientific network would make possible to identify emerging scientific areas for win-win collaboration between CNR and ISC. This collaboration may produce benefits for CNR at individual and institution level. This aiming to obtain a greater return of investment in science with concrete impacts on the rapid transformation of society.

Augusta Maria Paci

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