

Editorial

Juliana L. Vidal* and João Borges*

Preface for the special issue ‘Activities and Actions Towards a Sustainable Future’ – a joint project by the International Union of Pure and Applied Chemistry (IUPAC) and the International Younger Chemists Network (IYCN)

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In September 2015, the United Nations (UN) disclosed the Agenda 2030 and its 17 Sustainable Development Goals (SDGs) aiming to address pressing environmental and societal challenges and to create a better world. Some of the proposed goals intend to end poverty, promote health and well-being, protect human rights, reduce inequalities, fight climate change, protect the planet, and ensure prosperity for all.¹

Despite the efforts across nations, the world is far behind in achieving the UN SDGs. The COVID-19 pandemic, but not only, imposed a major burden on achieving those goals, and global and concerted efforts, as well as meaningful actions are needed, at a global scale, for the betterment of society and the sustainability of our planet. In this regard, chemistry plays a key role not only in ameliorating those effects but mainly in finding solutions for tackling the UN SDGs. Major international organizations across the chemical sciences, such as the International Union of Pure and Applied Chemistry (IUPAC) play a vital role in this global effort by bringing together key players, including leaders, professionals, scientific societies, national academies of sciences, and other bodies, and fostering a multi-stakeholder dialogue between them. One should not neglect the role and impact of young chemists and professionals as the future generations actively working for a sustainable future. In this regard, the International Younger Chemists Network (IYCN), a Standing Committee of IUPAC since 2023, has been playing a fundamental role in connecting, supporting, mentoring and empowering early-career chemists in striving for a more sustainable future. In addition to their individual efforts, IUPAC and IYCN have been working together on several projects and initiatives to strengthen their collaborative efforts and contribute to a more sustainable and better future for all.

A recent joint project is the ‘Global Conversation on Sustainability (GCS)’ – <https://www.gcs-day.org>.² This project seeds upon previous initiatives and activities by the IYCN and IUPAC and is sponsored by Merck KGaA, Darmstadt, Germany and supported by other partner organizations, including Beyond Benign, the Global Young Academy (GYA), the International Sustainable Chemistry Collaborative Centre (ISC3), the Chemicals &

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***Corresponding authors:** Juliana L. Vidal, Beyond Benign, 18 Church Street, 1016, Wilmington, MA, USA, e-mail: juliana_vidal@beyondbenign.org. <https://orcid.org/0000-0001-8755-7220>; and João Borges, CICECO – Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal, e-mail: joaborges@ua.pt. <https://orcid.org/0000-0003-0126-8482>



Fig. 1: Summary of the goals and expected outcomes of the GCS. The project is based on the implementation, communication, promotion, and collaboration between individuals and organizations in contributing to achieve the UN SDGs and promoting sustainable development globally.

Waste Youth Platform (CWYP) of The UN Major Group For Children & Youth (UNEP MGCY), or the International Year of Basic Sciences for Sustainable Development 2022 (IYBSSD2022). The GCS project aims to aid in tackling the UN SDGs by (i) raising awareness and encouraging conversations among diverse stakeholders, including university scientists, governmental and non-governmental organizations, business entities, and the whole scientific community on implementing sustainable solutions globally on a chemistry basis, (ii) communicating local activities that could be applied at national and international levels, (iii) connecting and engaging young and established scientists, as well as the general public in taking effective actions for a sustainable future, and keeping track of their progress, and (iv) launching synergies and collaborations across different countries, cultures, and continents to further implement the practices discussed (Fig. 1).

The GCS umbrella is based on a yearly one-day event on September 25th (the day of the UN SDGs), focusing on sustainability towards a common good.² Other initiatives include the creation of videos and the organization of symposia in chemistry conferences in which individuals highlight diverse approaches and perspectives for effectively communicating and actively implementing a culture of green and sustainable chemistry practices across multiple audiences to achieve the UN SDGs.

This special issue in Pure and Applied Chemistry (PAC) is another way to feature and amplify the diverse formats of GCS events organized by individuals, organizations and institutions worldwide, as well as convey the activities, actions and contributions pursued by them towards achieving the UN SDGs and advancing sustainability in regional, national, or global environments and communities. Original research articles, reviews, opinions and perspectives by the global chemistry community on strategies to address the UN SDGs are presented aiming to empower and inspire the community to engage in meaningful activities and actions towards achieving a diverse, sustainable and just future for all.

Guest Editors: Juliana L. Vidal, João Borges (Co-Chairs of the GCS project)

1. United Nations *The Sustainable Development Goals Report*; United Nations Statistics Division Development Data and Outreach Branch: New York City, United States of America, 2021.
2. Vidal, J.; Borges, J. The Global Conversation on Sustainability: An IYCN/IUPAC Joint Effort to Creating a Sustainable Future Worldwide. *Chem. Int.* **2023**, *45*, 10–16; <https://doi.org/10.1515/ci-2023-0204>.