Alicia Duran Carrera: "United Nations International Year of Glass for 2022 will underline the technological, scientific and economic importance of glass"

The International Glass Commission was founded in 1933 from 6 countries. Today their number has increased to 33, since the Commission's activities are aimed at promoting global cooperation in the glass world. The president of the organization, Alicia Duran Carrera, has answered our questions.

Dear Ms. Duran, please tell us about ICG history.

ICG has grown to become the most recognised worldwide organisation in the field of glass bringing together the world's most respected universities, scientific institutions, companies of the glass industry and allied organisations.

Who is member of ICG?

There are 33 countries associated through glass societies, companies or research institutions dedicated to glass. Moreover, we count with 15 AMC (associated member companies) and 7 AM (association members).

The ICG is financed by subscriptions from Member Organisations set in proportion to the annual glass output of the respective countries. Additional income arises from Associate Member Organisations, the sale of publications and royalties.

ICG also gains considerably from contributions 'in kind' from individual members of the administrative team and technical committees who give freely of their time and effort.

What kind of activities do you provide?

The ICG achieves these objectives by organising Technical Committees work (e.g. laboratory round robins, comparative studies, topical meetings), compiling information on glass (e.g. publishing scientific and technical papers, reports and books) and by sharing and disseminating knowledge on glass in advanced educational courses and workshops. A further major role is to organise international meetings. Every three years the ICG holds an International Congress on Glass while Annual Conferences take place during the intervening period often in conjunction with national society meetings.

The International Commission on Glass has operated successfully for 8 decades. During this period it has welcomed many new member organisations. Numerous well-known glass scientists and technologists are involved in its organisation and it is run by a committed and experienced administration. Participating organisations in the ICG enjoy hands on experience and achievement through involvement in TC activities. Major benefits are gained from direct association between international glass experts in the fields of science and technology, art and education and through liaisons with related fields of technology such as optics, photonics, electronics, nanotechnology, coating technology, biotechnology, polymers and composites. An example of this interaction has been the recent development of research road maps for several key areas of interest.

Education is a key goal of ICG, developed by the TC23 and the ICG Summer school of Montpellier, the Winter School in Wuhan and the new North America Summer School in Quebec.

Could you please inform our readers about "Year of Glass" project?

These United Nations declarations of major fields of international endeavor have stimulated renewed contributions to society worldwide. In the 21st century, the United Nations has recognized the International Year of Astronomy (2009), the Year of Chemistry (2011), the Year of Light and Light-Based Technologies (2015), and, in 2019, the Year of the Periodic Table and the International Year of Indigenous Languages.

Against this storied background, an international groundswell has arisen to pursue a United Nations International Year of Glass for 2022 that will underline the technological, scientific and economic importance of glass—the transparent material that can facilitate emergence of a more developed, just, and sustainable societies to meet the challenges of globalization. There are plenty of arguments supporting the significance of glass as an enabling material for building a sustainable society.

With its unparalleled versatility and technical capabilities, glass material has fostered numerous cultural and scientific advancements in communications, optics, energy, and medicine.

- Optical fibers are the physical support that permitted the change of paradigm that gave rise to the global communications revolution; they are the backbone of the internet development and the globalization process. Glass is the main support of a knowledge society.
- Clean energy technology involves glass as a key material for solar (PV and CSP) energies, for reducing the carbon footprint with wind energies and carbon capture and sequestration (CCS), also increasing safety of nuclear energy with vitrification of hazardous waste.
- Bioglass compositions have advanced more effective health care with their ability to integrate with human bone, stimulate the human body's natural defense to heal flesh wounds, permit bone repair and tissue design and regeneration, resolving hearing and dental issues.
- Optics and optoelectronics have evolved from creation of Galileo's telescopes to the James Webb space telescope, able to study the very first moments after the big bang to expand understanding of the Universe.

In summary, glass is the transparent tool allowing building a sustainable planet with more developed and just societies. But glass involves much further than science. Glass is also art, the history of this material sharing the history and evolution of human kind.

A UN Year of Glass in 2022 would underline the technological, scientific and economic role of glass and the importance of a year of glass for improving the performance and development of key technologies that contribute to meet the challenges of a sustainable society.

Extensive planning is now underway at the international level to make possible a UN Year of Glass. Part of this planning process is to reach out to both art and scientific glass-themed societies and museums and share this concept with them. Formal endorsements will be requested to permit arriving to a successful resolution at UN General Assembly in July 2020.

Meanwhile, in anticipation that a UN Declaration of a Year of Glass will be achieved, all are encouraged to begin thinking about how their respective organizations could participate in this once in a lifetime historical chapter in the history of glass. Securing a Year of Glass would the first time a material has been celebrated in this manner.