

Professor John Ludden
President, IUGS

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Dear Members of the IUGS,

I am writing to introduce myself, having been very pleased to be elected as President of IUGS from 2020-2024 at the extraordinary IUGS council meeting in November 2020.

I would like to thank the outgoing President Professor Qiuming Cheng and those members of the IUGS Council who will have ended their mandates. I will work with an IUGS Bureau which comprises Professor Stanley Finney as General Secretary and Professor Hiroshi Kitazato as Treasurer, both of whom have worked with the previous president and will provide continuity for IUGS. Also, the Chinese Academy of Geological Sciences will continue to provide the IUGS Secretariat. I am also joined by two vice-presidents and four councillors with diverse backgrounds and good geographic spread, and their names and contact details are given on the header of this letter and on the IUGS web site <https://www.iugs.org/executive>.

You might be interested to learn what experience I have for this role and what expertise I hope to bring to IUGS. I am a geologist with a petrological focus and I have worked professionally in five countries and in both English and French. I worked on geological systems from the Archaean of Canada and Russia to modern sea-floor processes. As I have moved more into administrative roles, I have increasingly concentrated my efforts on the applications of geoscience to resources and to environmental change.

I am now a Professor in Heriot-Watt University (HWU) in Edinburgh with a role in environmental governance and diplomacy as part of the recently created Lyell Centre. This is an initiative between HWU and the British Geological Survey (BGS), from which I recently stood down as its Executive Director from 2006-2019. Prior to this I was the associate director for Earth Sciences for the CNRS and *Directeur de recherche classe-exceptionnelle* for the CNRS, France. Before moving back to Europe in 1994, I was a Professor at the Université de Montreal, Canada and research scientist in the USA. My PhD is from Manchester University, UK and my undergraduate studies were in Environmental Sciences at Lancaster University, UK.

I am very grateful for these employment opportunities and also the awards that I have received for my work. Having worked in two languages across the academic, research agency and geological survey and services sectors, I have experience of the entire IUGS remit. I will encourage all of these sectors to work in unison to solve the problems now facing humanity.

In my presentation to the Extraordinary Council of IUGS, I stressed the fact that the geological sciences are at a turning point and also face an identity crisis. Although an important part of our science is about discovery of how the planet formed and has evolved, geology was largely built on the need to find resources – initially coal, ironstone and limestone to underpin the industrial revolution, and then oil and gas and base metals that have allowed us to prosper throughout the 20th century and into the present one.

At the start of this new decade in the 21st century, we find ourselves confronted with daunting tasks. The most important is climate change and the environmental and social adaptations associated with reducing carbon and other emissions, so that we can reach NetZero-C emissions as rapidly as possible.



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The climate change community has been proactive in identifying the problem of climate change and I believe that the geological sciences community has a role in developing a programme for resourcing the Earth's future in a world of changing demands. The IUGS can champion this programme through its funding groups, but more importantly by using its global reach to bringing people's attention to the need for new resources and a NetZero-C economy. The resources which fall in the geological science's remit are metals, materials for infrastructure, water and soils and associated energy systems of the future.

I must underline that data itself is a resource and a new infrastructure underpinning all sectors of the geological sciences. We will need to better link our geological data with other data sets as it is inconceivable to not integrate geological and geophysical data with infrastructure, environment and social factors, if we are to make significant advances in providing full value-chain solutions.

It is very unfortunate that the IUGS had to remove its support for the postponed 36th IGC, scheduled in August 2021 in Delhi, India. I have done this in concert with the 36th IGC local organising committee and IUGS hopes to be able to organize a virtual themed meeting early in 2022 in order to replace the IGC.

I intend to increase the activities of the IUGS between the four-yearly cycle of International Geological Congresses IGC. The 37th IGC will now be in Busan, Republic of Korea, and the executive has recommended that the 38th IGC should be in St. Petersburg in 2028. The step change in communication technology that has resulted since the advent of the COVID-19 pandemic, has allowed for better electronic communication and more wide-reaching meetings. The IUGS should build on this and hold more enlarged executive meetings so that we can build a more active community. IUGS will also sponsor integrating activities between its different components, with other GeoUnions and with the International Science Council.

In conclusion, although I intend to create a task force to redefine the IUGC strategy, in light of the current drivers for the geological sciences, I should point out here that the mission statement redefined 20 years ago in International Earth Science in the 21st Century https://98ca4554-1361-4fb1-a4d8-a1bb16d032e6.filesusr.com/ugd/f1fc07_1cc075eef2434d4498993745d8cacc9b.pdf

is as applicable now as it was then...

"The mission of the IUGS is to unite the global geological community in (i) promoting development of the earth sciences through the support of broad-based scientific studies relevant to the entire earth-system, and (ii) applying the results of these and other studies to preserving Earth's natural environment, using all natural resources wisely, and improving the prosperity of nations and the quality of human life."

The drivers have changed and the global perception of our science is shifting, but we have a good communication platform and can use outreach initiatives, such as those shared with UNESCO, to focus communication on the issues facing the Earth now and in the future.

Together, we need to refine and redevelop the IUGS to respond to what the public and governments now expect of the largest global union of geological sciences - the International Union of Geological Sciences.

I count on your continued support.

Yours Sincerely

Professor John Ludden CBE
President, IUGS

International Union of Geological Sciences