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The Innovation Platform

AS we near the end of another turbulent year, the events of the past 12 months leave room for reflection on the progress made and the challenges that lie ahead.

Aside from the obvious discourse of the COVID-19 pandemic, another highly debated topic – climate change – was brought close to home for the UK this year, with the meeting of global leaders at the COP26 climate conference in Glasgow. Although some argue that many issues were still left unresolved, several key achievements from the event prove that we are making progress.

In one of the first breakthroughs made during the summit, over 100 world leaders committed to ending and reversing deforestation by 2030. The conference also saw the major announcement of a partnership between the US and the EU, as part of a commitment to cut methane gas emissions by 2030. Despite the significant progress made, other instances, such as China and the US' lack of commitment to a move away from coal, show there is still more to be done.

Echoing several critical discussions at COP26, Professor Dame Lynn Gladden, Executive Chair of the Engineering and Physical Sciences Research Council (EPSRC), authors this edition's Foreword. Emphasising the vital role that innovation and research can play in meeting ambitious environmental targets, Professor Gladden discusses how EPSRC has and will continue to facilitate development towards a more sustainable future.

In line with the dialogue for alternative fuels heard at COP26, you will find extensive features on electric vehicles and battery development in this issue's research and development section. From the European Association for Electromobility to InnoEnergy EIT France, we have a range of opinion-led comments from various essential industry voices.

Shining the spotlight further on modern research and development, our graphene focus explores this fascinating nanomaterial's many capabilities and potential applications. As well as comment from the Graphene Flagship, the section also features



an interview with The Graphene Council's Terrance Barkan, exploring graphene innovation within the US and globally.

Elsewhere in the edition, we have thought-provoking content from a handful of world-renowned scientists in our comprehensive physics section. Professor Tiziano Camporesi discusses the CMS experiment at CERN, and we also spoke to Dr Jinlong Zhang, ATLAS Group Leader at the Argonne National Laboratory, to discover more about Argonne's involvement in CERN's ATLAS experiment. In addition, you will also find a look back at the career and key achievements of the highly established Professor Brian Foster OBE and insight on the UK's involvement in the development of the Electron-Ion Collider (EIC). Closely following this is our space and astrophysics section, featuring conversations with the likes of the European Space Agency and Professor Heino Falcke – the man behind the first-ever photograph of a black hole.

Examining further arguments and solutions surrounding climate change mitigation, our environment and sustainability section includes discussions about water, aquaculture, the sustainable environment, and disaster response, featuring everything from a snapshot of Europe's water infrastructure to the benefits of building with timber.

These are just some of the many pieces featured within this edition, and I hope you will find them as engaging and insightful as I did in their creation. I also welcome your comments and suggestions for future editions.