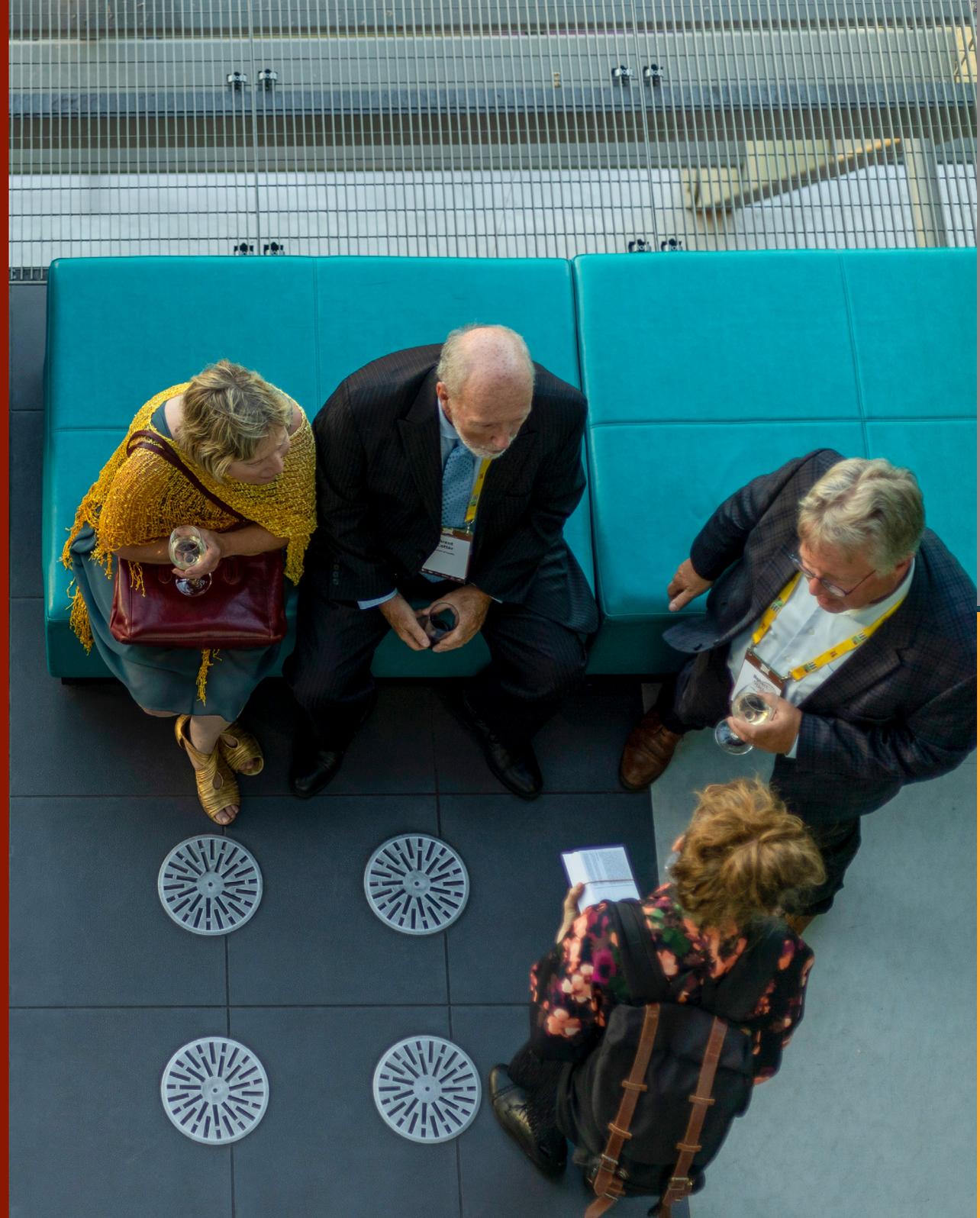




**BRITISH SOCIETY  
OF SOIL SCIENCE**

*Annual Report*  
**2022**



## Contents

Introduction from the Chairman.....	3
Introduction from the Executive Officer .....	4
Our strategy 2020 – 2025 .....	5
Our year in numbers.....	8
Seeking to publicise the key issues for the soil science community.....	10
Promoting change through knowledge exchange across all aspects of soil science ....	12
Hosting conferences and meetings focused on soils.....	14
Supporting and encouraging the education of soil science.....	16
World Congress of Soil Science.....	18
Inspiring the future generations of soil scientists .....	21
Ensuring high standards of professional practice for those working with soils.....	24
Leading on the social and environmental responsibilities of a contemporary society ....	26
About us .....	28
Our people .....	29
Financial review.....	30



# Introduction from the Chairman

**I began my Presidency on 1 January 2023 and I am excited to be reporting on such a successful year, led by my predecessor Bruce Lascelles.**

Despite Bruce's presidency being shadowed by the pandemic, he has led the Society to one of its most successful years to date. During our 75th anniversary year, we delivered the World Congress of Soil Science 2022, increased our visibility amongst stakeholders and represented almost 900 members. This year we really saw a step change in the activities and impact of the Society.

This Annual Report sets out our incredible achievements in 2022, with the World Congress being our flagship activity. However, we didn't forget about our other aims that included delivering exceptional professional support for our members and outreach activities raising the profile of soils with non-members and the general public.

To ensure we delivered a clear alignment to our aims, early in 2022 Board agreed a 10-year vision to support its 2020 – 2025 strategy. For a small team that relies heavily on volunteers, this clarity of vision is essential. With Board agreeing our strategic ambition to be achieved by 2022, 2025 and 2030, our executive team has been able to plan resources appropriately and support our volunteers in delivering activities, which help us on the journey towards our long-term vision.

At the end of 2022, two long-standing Board members, Sacha Mooney and Tom Aspray, who were integral to the development of the Society's 10-year vision and served six and five years respectively, stood down from the Board. I would like to express my sincere thanks to them for their contributions during this important time and their direction in shaping the strategy. Thank you also to Brian Westbury, an experienced pension trustee, who stepped down as Governance Trustee in April, after supporting us with our governance for six months.

Developing a clear vision has only been possible by having the right people around the table. This includes diversifying our board to ensure we have the right skills mix to effectively set the direction and strategy for the Society and meet our governing responsibilities. For our Society, this means that we will continue to have a minimum of four Trustees with soil science expertise but have also welcomed Trustees from outside the sector who can bring additional valuable knowledge and experience.

I am delighted that we welcomed Dan Lambeth in 2022 to the Board as Marketing, Communications and Policymaking Trustee. Dan brings a wealth of knowledge and experience from the consulting sector particularly within Environmental, Social and Governance (ESG), having worked with organisations of all sizes in implementing and communicating environmental strategies. Dan joins fellow non-member Anirban Sarkar, our Finance Trustee, whose

expertise and advice over the last year has already enabled us develop a clear strategy for our financial investments.

Despite the continued turbulence in the financial markets, our finances have remained healthy and our audited 2022 financial report will be available later in the year. Our conservative investing has meant that we have achieved our income targets and made significant savings on expenditure mainly due to increased efficiencies in the office and a reduction in face-to-face meetings and travel.

Our pioneering policy day, the first at the World Congress of Soil Science, brought together researchers, practitioners, professional bodies and policymakers. This resulted in further enhancing our reputation in 2022 as the organisation that represents both professionals and non-professionals in soil science. In 2023, I particularly hope to build on this success and strengthen our relationships with the devolved UK governments.

None of the achievements of 2022 would have been possible without a committed group of volunteers who make up our Board, Council and sub-committees, as well as volunteering their time to support particular projects. I am immensely grateful for your support and insights over the past year: thank you.

**Dr Jack Hannam**  
Chair of the Board of Trustees 2023 – 2024

*“To ensure we delivered a clear alignment to our aims, early in 2022 Board agreed a 10-year vision to support its 2020 – 2025 strategy. For a small team that relies heavily on volunteers, this clarity of vision is essential.”*



# Introduction from the Executive Officer

It goes without saying that the delivery of the World Congress of Soil Science (WCSS) is the culmination of years' worth of work from in excess of 50 staff and volunteers. As you will see on the pages of this year's Annual Report, there were significant outcomes for the Society and for Soil Science.

We were lucky enough that two members of the royal family supported the event. His Royal Highness the Duke of Gloucester, our Patron, welcomed delegates to the event, and His Royal Highness King Charles III (then the Prince of Wales) closed the event with a pre-recorded address.

The support of influential figures is pivotal to raising awareness of the importance of soil to human existence, particularly when the wider world is beginning to understand soils' vital role in sequestering carbon.

During the Congress we went to significant lengths to ensure the event was as sustainable as possible, with the least possible impact on the environment. The Environmental Impact Assessment (EIA) we have undertaken is in the process of peer review for a business journal and we hope will be published shortly. On the first day of COP 27, we published our recommendations for those planning international conferences and events in conjunction with the International Congress and Convention Association (ICCA).

Combined with the publication of this document, I was delighted to present at the ICCA's own congress in November and discuss sustainability and leaving a positive congress legacy. In addition, WCSS was shortlisted for the Sustainability Award at the Association of British Professional Conference Organisers' (ABPCO) Annual Awards. We were up against some stiff competition in the category, with COP 26 which was the ultimate winner, our main rival.

The work we have done on sustainability provides a real opportunity to make a difference to the way other organisations, big and small, approach event planning. If our recommendations are followed, this could have a huge impact on the environmental impacts of the congress industry which was valued globally at \$1,135.4 billion.

The Congress legacy is only just beginning and the activities the Society has been asked to undertake to deliver this legacy is set out on page 20 includes the action we will take to continue this, including setting up an environmental committee in late 2023 to agree how the Society should approach its commitment to be a carbon-positive organisation by 2030.

Our work on the sustainability of the congress demonstrates how over the last couple of years, we have made strides to become a trusted organisation both for those within and outside of the soil science community. Our approach continues to pay dividends with the Society now representing almost 900 members, compared to 700 just two years ago.

To help continue this momentum, we were delighted to welcome Dominic Simms to the team. Dominic joined us from Cranfield university's school of management marketing team and is leading on our communications, marketing and events activities.

This year's Annual Report sets out the increased impact the Society has had over the last year and I hope you enjoy reading about our demonstrable reach.

I look forward to working with you all in 2023.

**Sarah Garry**  
Executive Officer



*"The work we have done on sustainability provides a real opportunity to make a difference to the way other organisations, big and small, approach event planning"*

# Our strategy 2020 – 2025

## Our mission alongside a seven-point, five-year strategy focuses our efforts and activities

The British Society of Soil Science (BSSS) is the UK's leading body in the area of Soil Science with a global reach. We strive to secure the future of soils by promoting an enhanced understanding of the critical importance of soils in delivering the U.N. Sustainable Development Goals and supplying knowledge, through our science, to support efforts to halt and repair soil degradation. We aim to make a positive difference in the sustainable management and long-term security of soils that is critical to solving the environmental and societal challenges we face today. We achieve our mission through the creation, dissemination and translation of knowledge. Specifically:



Society Patron, His Royal Highness the Duke of Gloucester

### Our Strategy said:

#### 1. Seeking to publicise the key issues for the soil science community

**In 2022**, we will deliver joint activities with partner organisations and maximise the effectiveness of our communications channels which will lead to increased visibility. This will include our Zoom into Soil webinars and partnered events held during the World Congress of Soil Science. We will begin to liaise with the UK media to highlight our evidence-based recommendations for soil health and will continue to deliver clear guidance and science notes. Our website will be a hub for sharing our outputs and will demonstrate an increase in user traffic.

**In 2025**, we will have delivered a clear legacy from the World Congress including a wider range of active stakeholders and increased

resources available to members and non-members. We will use our journals and website as mechanisms to deliver this. We will have become a key contact for UK media on soil-related issues and our science and guidance notes will have expanded into valuable resources for members and stakeholders.

**By 2030**, our journals will be recognised as two of the leading international journals relating to soil. We will have become a key contact for international media on soil-related issues and we will expand our guidance and science notes to provide context for an international audience. Our website will include greater guidance and information aimed at scientific and non-scientific audiences.

### Our Strategy said:

#### 2. Promoting change through knowledge exchange across all aspects of soil science

**In 2022**, we will have increased our visibility to governments, stakeholders and within the soil science community. We will be using our scientific knowledge to provide evidence-based information to local policymakers and recommending members to sit on expert panels and advisory groups. We will engage with those developing guidance, including on the periphery of soil science to encourage collaboration.

**By 2025**, we will be continuing to provide evidence-based information to policymakers at a national level and have become a contact for governments and

stakeholders on soil science issues. We will provide dedicated forums for our members to discuss policy and best-practice issues, allowing us to develop recommendations combining academic and practical perspectives.

**By 2030**, we will be providing evidence-based information to policymakers at an international level and will take a pro-active approach in responding to international consultations.

International stakeholders will seek out our dedicated member forums as advisory groups across the breadth of soil activities.

# Our strategy 2020 – 2025 CONTINUED

## Our Strategy said:

### 3. Hosting conferences and meetings focused on soils

*In 2022*, we will deliver the World Congress of Soil Science and encourage engagement between soil science experts, organisations, policymakers and those on the periphery of soil science. The World Congress will share the latest evidence-based information with attendees, in person and virtually, and ensure the widest possible audience has access to learnings from the event.

Using the knowledge and experience we develop from delivering the World Congress, we will

deliver an international and interdisciplinary activity by 2025. The activity will recur on a cyclical basis and will establish the Society as a key player in the dissemination of soils-based knowledge globally.

*By 2030*, the international and interdisciplinary activity will be delivered for a second time and have developed in size and reach. The activity will attract a broader, international audience with support from major stakeholders.

## Our Strategy said:

### 4. Supporting and encouraging the education of soil science

*In 2022*, we will use the World Congress as the basis to deliver educational activities to a diverse, scientific and non-scientific audience including hosting outreach and digital events. Our scientific knowledge and history will remain at our core but we will seek to engage with as wide an audience as possible through social media, links with arts groups and other organisations.

*In 2025*, we will have delivered a clear legacy from the World Congress including a wider range of active stakeholders and increased in-person and digital resources available to members and non-members. This, alongside increased outreach and engagement work, will lead to an increased awareness of the importance of soil amongst a wide range of communities.

*By 2030*, we will have delivered large-scale outreach programmes, which aim to increase awareness of soil to audiences which can have a demonstrable impact in its care. As a result, the Society will also be recognised by educators and those already engaged in environmental matters, as a reliable source of information.



## Our Strategy said:

### 5. Inspiring future generations of soil scientists

*In 2022* we will provide our Early Careers members with dedicated opportunities to network with their international colleagues during the World Congress of Soil Science. We will continue working with awarding organisations to influence the development of new qualifications which support tomorrow's soil scientists.

*By 2025*, we will have developed a clear education and training pathway demonstrating the routes into soil science. We will have understood the gaps that exist and developed new courses and content for those within the sector, where the content does not exist. We will continue to work with external bodies to influence the soil science taught at all levels of the curriculum.

We will continue to provide our Early Careers members with the opportunity to network with their peers face-to-face and virtually, and provide support to help them make the transition into Full membership.

*By 2030*, we will continue to promote the education and training pathway to members, students and those interested in working with soil. We will work closely with other professional and external bodies to embed soil content into peripheral qualifications, to ensure anyone who works in any context with soil, has the skills to do so.

We will recruit Early Careers members from a wider range of specialisms to encourage collaboration. This will support our members' career opportunities whilst encouraging interdisciplinary working.

Throughout our 10-year vision, we will encourage Society membership as a mechanism to support training and development at all career stages.

## Our Strategy said:

### 6. Ensuring high standards of professional practice for those working with soils

*In 2022*, we will continue to deliver our successful Working with Soils training series both in person and online. Our Zoom into Soil webinars and World Congress of Soil Science will provide opportunities for members and stakeholders to undertake continued professional development from a well-respected professional body. We will continue to promote CSci as a valuable mechanism to demonstrate professional skills and experience.

We will encourage organisations to join the Society as corporate members and focus on innovative partnerships which will add value to our members' professional practice.

*By 2025*, we will require a minimum number of hours of CPD to be provided by Full and Fellow members each year. This will be closely linked to the CSci requirements to encourage more members to obtain CSci status in addition to Society membership. As a result, our members will be well-respected and highly visible as experts in all aspects of soil and its management.

We will update our corporate membership category to allow organisations to demonstrate the value of membership via outcomes aligned to the Society's mission.

*By 2030*, our membership and number of CSci registrants will grow and strengthen as our professional standards are seen as a mark of expertise and are in demand from clients. Our clear education and training pathway will have led to an increase in the number of qualified soil experts and with industry clients specifying our members for soils work. Our external-facing activities will have led to an increase in membership across non-practitioner grades and we will have introduced tangible benefits to encourage membership amongst the non-scientific community.

## Our Strategy said:

### 7. Leading on the social and environmental responsibilities of a contemporary society

*In 2022*, we will measure our environmental impact in delivering the World Congress of Soil Science. Our executive and volunteers will be expected to offset their own environmental impact by supporting local, practical projects which support soil health. Delegates will be actively encouraged to engage with similar projects in their home locations. A study of our environmental impacts and practical solutions to reducing those impacts will be shared with scientific and non-scientific audiences.

We will encourage diversity and inclusion at our events and members and event delegates will be expected to follow a Code of Conduct to engage with Society activities.

*In 2025*, the Society will have a thorough understanding of its environmental impact across all aspects of its operation and have a clear plan in place to reduce and offset its impact. We will continue to encourage inclusion within our membership by providing diverse role models at events and in our case studies.

*By 2030*, the Society will be a 'carbon positive' organisation, having minimised its environmental impacts and provided practical support to projects which outweigh any negative operational impacts. Our positive approach to diversity and inclusion will have led to a demonstrable increase in diversity across our membership.

# Our Year in Numbers

904 people attended our eight *Zoom into Soil* webinars

Over 3,000 people had watched the *Zoom into Soil* content online during 2022

Our four UN Sustainable Development Goals videos generated almost 1,600 views during 2022

3 new Society Fellowships awarded this year

1 new Honorary member – Professor Mike Goss

42 Chartered Scientists

33 email updates sent to members and stakeholders

28.5 training hours delivered

24 news items on our website

15 blog posts written for our website

2 editions of *Soil Matters* published

25 external soil-related events promoted

A 66% average increase in usage across our social media channels

During 2022, BSSS welcomed **137 new members**: one more than 2021!

2  
CORPORATE

22  
ASSOCIATE

83  
EARLY CAREER

20  
FULL

10  
TECHNICAL



BSSS members stretch far and wide across the globe with members in 42 countries. At the end of 2022, 62.7% of our members were male, 33.8% female, 0.2% gender non-conforming, 0.1% transgender and 0.1% non-binary with 3.1% preferring not to say. Amongst our Early Career members, 38.1% of were male, 54.7% female, 0.9% gender non-conforming, 0.45% transgender and 0.45% non-binary with 5.4% preferring not to say.

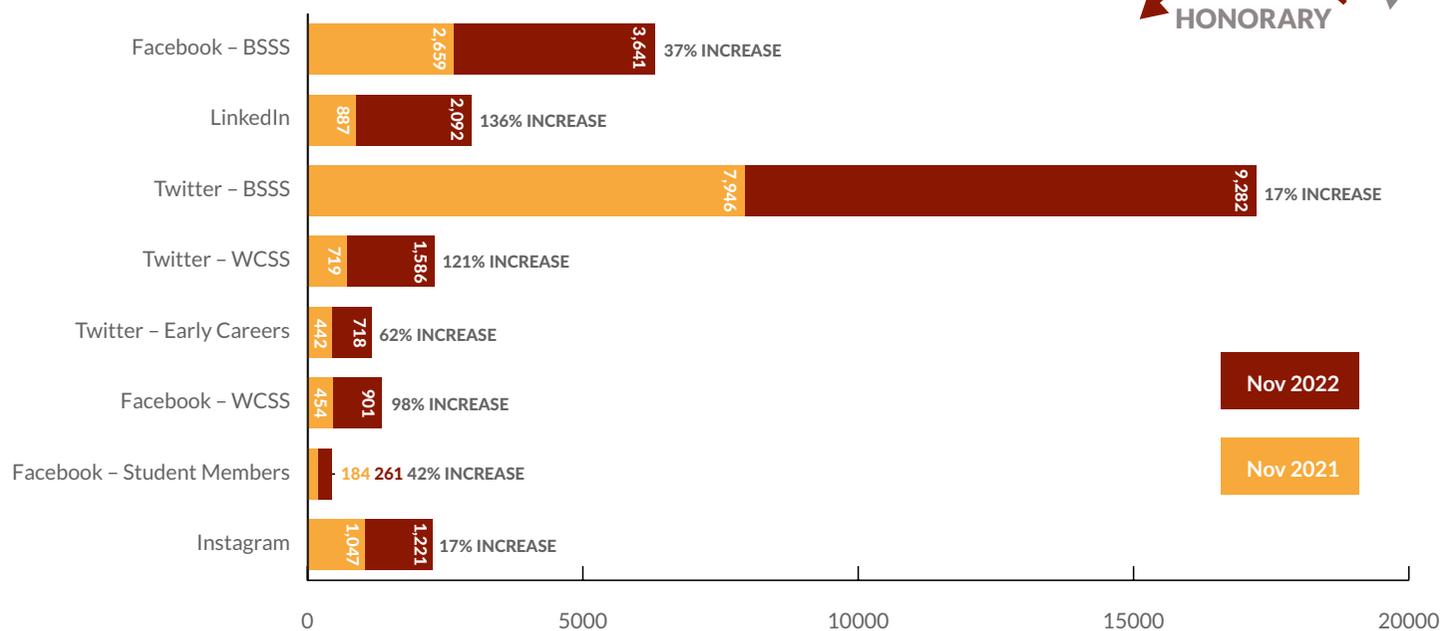


At 31 December 2022, BSSS represented **883 members**, the highest number of members in the Society's history and a **3.5% increase** on members at the end of 2021 (853).

The Society also represented five Corporate Members.



### Social Media Channel Usage:



# Seeking to publicise the key issues for the soil science community

## Our Strategy said:

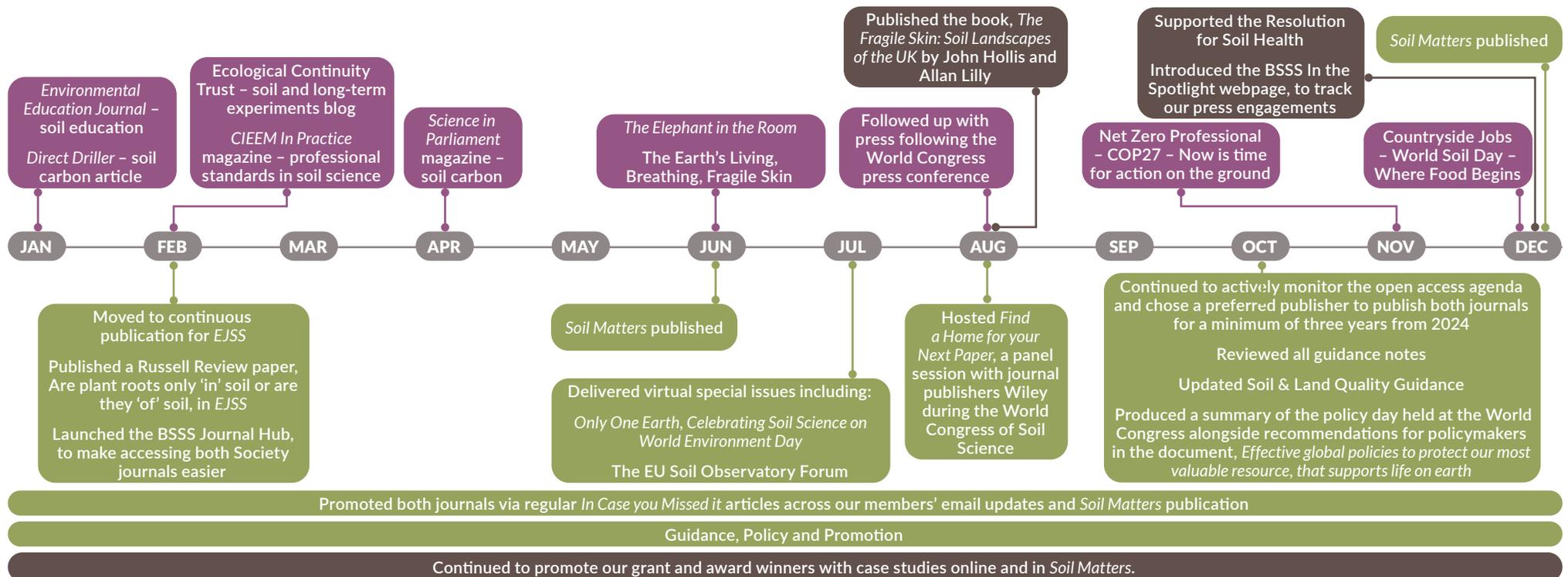
We will raise the profile of the important soil issues via our two prestigious journals, European Journal of Soil Science (EJSS) and Soil Use & Management (SUM), our bi-annual member's newsletter (the Auger), our new website, an enhanced social media presence and by hosting regional, national and international conferences. We will actively engage with the media by responding quickly to enquiries, providing factsheets and policy notes ensuring we are acknowledged as the UK's leading authority on soil science.

## What we set out to achieve:

Introduce a journals hub landing page – providing better visibility to our journals	✓
Review <i>Soil Matters</i> to see whether it still meets members' needs <i>Our Council agreed to carry this activity over into 2023 once a new Communications Coordinator had been recruited</i>	✗
Increase our visibility on social media – increasing our reach	✓
Delivering more guidance and Science Notes on high-profile topics	✓
Respond to relevant UK and international consultations.	✓

## Our Achievements:

■ Journals
 ■ Media highlights
 ■ Other activity



## Our Impact:

- » The 2021 Impact Factors were 4.178 for the *European Journal of Soil Science* (4.949; 2020 a 18% decrease) and 3.67 for *Soil Use and Management* (2.950, 2020; a 24% increase)
- » There was an increase in all metrics across all social channels from 2021 to 2022 with the highest increase in followers on LinkedIn. The post with the most impressions was our Twitter post about our giant UK soil map to welcome delegates to the World Congress. Our social channels now provide us with direct access to 17,000 organisations and individuals overall.
- » 597 downloads of each of the guidance notes and science notes
- » Total number of articles downloaded from *European Journal of Soil Science* and *Soil Use and Management* totalling 611,250, a 15% increase from last year
- » A 20% increase in the number of Open Access articles published across both journals.

## In 2023, we will:

- » Agree a suitable publishing arrangement to suit our two journals
- » Review *Soil Matters* to ensure it still meets members' needs
- » Publish a comprehensive document summarising the findings from the first soil policy day held during the World Congress
- » Produce a minimum of two guidance notes on relevant topics
- » Produce two Science Notes on relevant topics
- » Review and update existing guidance notes
- » Respond to relevant UK and international consultations.

## CASE STUDY

### Policy Day Recommendations Document

The British Society of Soil Science held the first ever policy day at a World Congress of Soil Science. The over-subscribed event brought together over 120 international researchers, practitioners and policymakers who shared knowledge. The day's aim was to encourage knowledge sharing, providing policymakers with the evidence needed to make decisions and for researchers to learn what information was needed by governments.

As a result of the day, we published the two-page document *Effective global policies to protect our most valuable resource, that supports life on earth*. The document set out our recommendations based on the evidence provided by the expert speakers and provided the basis for our asks of international governments during COP 27.

Following on from the document, a full-length report summarising the whole day will be published in 2023. This will be accompanied by further policymaker engagement, including a dedicated policy day during our 2023 Annual Conference.

Finding common ground  
A case study on an  
government and stakeholder  
collaboration on a soil policy  
statement for Wales  
Pham<sup>a</sup>, Carmen Sánchez-García<sup>b</sup>, Erik Button<sup>c</sup>  
<sup>a</sup> School of Water, Energy and Environment, Cranfield University  
<sup>b</sup> Department of Geography, Swansea University  
<sup>c</sup> School of Natural Sciences, Bangor University  
22nd World Congress of Soil Science, Glasgow



# Promoting change through knowledge exchange across all aspects of soil science

## Our Strategy said:

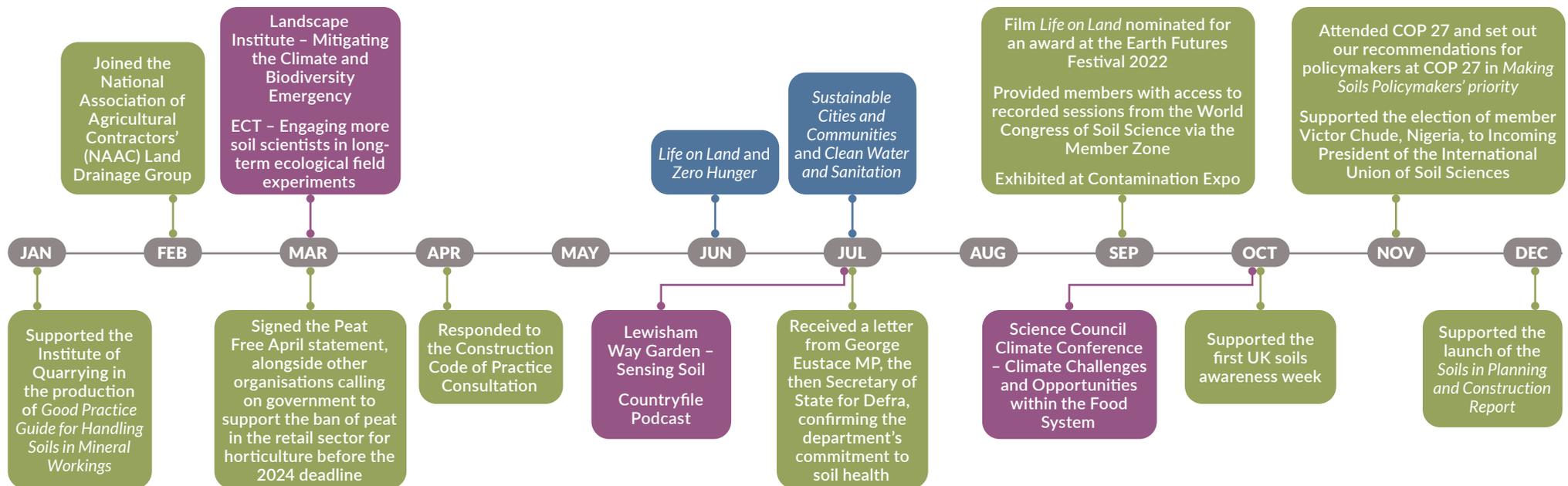
We will seek to support knowledge exchange in soil science through targeted engagement with industry, policy makers, government and educators. We will promote soil science across a range of disciplines using our website, social media and newsletters, with reference to the appropriate scientific research published in our Journals. We will make the latest knowledge available to a wider community audience and provide a forum for debate and to develop new partnerships. We will also monitor government progress in developing new policies and ensure we feed into this process.

## What we set out to achieve:

Deliver a series of short videos to promote the importance of soil to a wider audience	✓
Agree how the Society should engage with COP 27	✓
Exhibit at Contamination Expo	✓

## Our Achievements:

■ General   
 ■ Presenting at events   
 ■ Four short films



Retained our membership of and contributed to membership bodies including the Parliamentary and Scientific Committee, Science Council and Society Publishers' Coalition (SocPC)

## CASE STUDY

### UN SDG Videos

Across July and August we launched four videos, to support the Society's aim of highlighting the importance of soil in achieving the UN Sustainable Development Goals.

The videos, *Life on Land*, *Zero Hunger*, *Sustainable Cities and Communities* and *Clean Water and Sanitation* featured members and stakeholders explaining the evidence which supports soil's importance.

The videos have been watched almost 1,600 times and were played during the Opening Ceremony of the World Congress of Soil Science.

The videos are available to freely download via our YouTube channel and anyone with an interest in soil is encouraged to use them in outreach presentations and across their social networks.



**WITHOUT SOIL,  
THERE IS  
NO LIFE**



#### Our Impact:

- » Over 7,500 views across all our social media channels of our UN Sustainable Development Goal (UNSDGs) videos, highlighting the importance of soil across four of the UNSDGs

#### In 2023, we will:

- » Develop a theme of work highlighting the value of soil in a range of contexts
- » Develop a digital project to store information gathered to deliver the World Congress tours programme
- » Exhibit at events aimed at professionals, including Contamination Expo
- » Agree how to engage with COP 28.

# Hosting conferences and meetings focused on soils

## Our Strategy said:

We aim to grow participation in our regional and annual meetings. We will act to develop communication pathways with a wide range of stakeholders and use our meetings to foster debate in the latest scientific and practical issues in soil science. Working with the International Union of Soil Sciences (IUSS) and other international societies, we are committed to delivering the best possible World Congress of Soil Science in Glasgow in 2022 and ensuring this provides a comprehensive legacy for the Society and its members.

## What we set out to achieve:

Host face-to-face Regional Group events and meetings



Continue our Zoom into Soil series, partnering with external organisations as relevant



Map our stakeholders and raise awareness of our events via these networks



*"Simply excellent speakers. Clarity of message with ample relevant evidence was superb."*

## Our Achievements:

» Eight free to attend Zoom into Soil sessions on, which were also made available on our YouTube channel after the event:

- › (Jan) Regenerative Agriculture
- › (Feb) Soils in Scotland
- › (March) A Successful Garden
- › (April) Peatlands of Scotland
- › (May) Soils: A Record of our Past
- › (Oct) Using Data to Improve Sustainability
- › (Nov) Asbestos in Soils
- › (Dec) HS2.

» Delivered face-to-face events for our Midlands and South East Regional Groups:

- › (May) Midlands Soils Discussion Group (MSDG) Agri-Robotics and Novel Technologies in Agriculture
- › (Jun) South East Soils Discussion Group (SEESOIL) Climate Change and Land Use in the UK and the Growth of Viticulture.

» Introduced a quarterly stakeholder newsletter to demonstrate the achievements of the Society to a wider audience

» Celebrated our 75th anniversary at the first in person Annual General Meeting (AGM) for three years, held during the World Congress of Soil Science

## Our Impact:

» Across all of our Zoom into Soil webinars, 94% of attendees indicated that they'd gained new knowledge from the webinar and 66% of attendees said that they would use the knowledge learnt as a result of the session in their future work

» Over 900 people attended our eight webinars and have been watched again by over 3,000 viewers on YouTube

» Stakeholder newsletter sent to over 1,000 people and read by an average of 44% recipients.

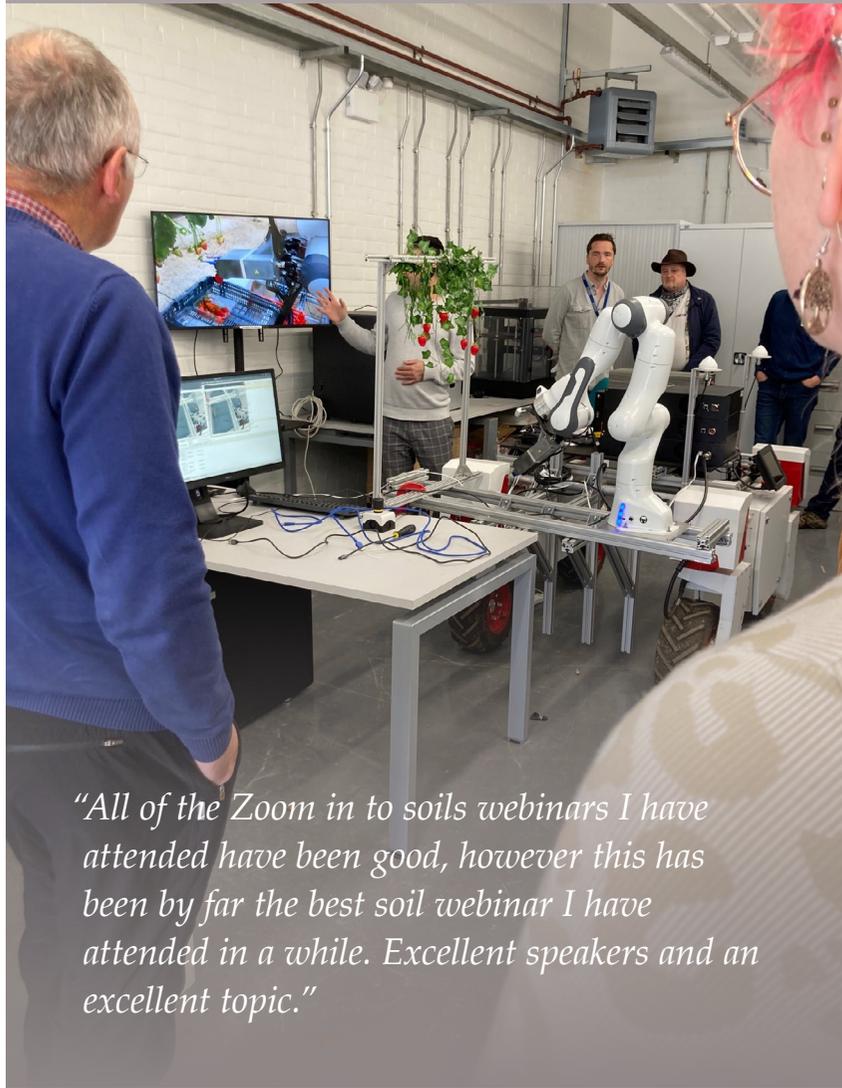
## In 2023, we will:

» Host face-to-face Regional Group events and meetings

» Continue our free-to-attend Zoom into Soil series, partnering with external organisations as relevant

» Deliver our Annual Conference in Belfast, alongside a tours and outreach programme

» Support the delivery of Eurosoil 2025.



*“All of the Zoom in to soils webinars I have attended have been good, however this has been by far the best soil webinar I have attended in a while. Excellent speakers and an excellent topic.”*

*“Excellent webinar. Very clear, informative and supported with excellent slides. Congratulations!”*

## CASE STUDY

### Zoom into Soil

First launched in 2020, the popular lunchtime webinar series, *Zoom into Soil*, has become a firm favourite on the BSSS event calendar and 2022 was no exception.

Our 2022 webinars covered eight diverse topics, from soils in Scotland to fossil soils and peatlands to HS2, offering expert insight into these fascinating aspects of soil science. Across the webinars, 91% of attendees rated the content as very good or excellent and 92% rated the presenters as very good or excellent. *Zoom into Soil: A Successful Garden Above and Below Ground* was a resounding success with 100% of attendees rating both the content and speakers, Jon Dickinson and Dr Jill Kowal, as very good or excellent.

Supported by ADAS and in collaboration with the British Ecological Society, we kicked the year off with our highest attended webinar to date: *Zoom into Soil: Regenerative Agriculture*. Attended by 328 delegates and subsequently watched by over 1,200 people on YouTube, we were delighted to welcome Dr Anne Bhogal, a Senior Soil Scientist at ADAS, and Professor Richard Bardgett, a British ecologist

and Professor of Ecology at the University of Manchester, to present their expert knowledge on this topical subject.

Both Dr Bhogal and Professor Bardgett outlined the widespread interest and reporting of the term Regenerative Agriculture in the press in recent years. Even though the term has not been used widely in academic literature thus far, it has become increasingly prominent amongst policy makers and practitioners. Both speakers agreed that the premise of regenerative agriculture principals is to go beyond just sustaining the environment, but to restore and enhance ecosystem services. As a result, soil management is generally a key focus of the regenerative agricultural practices that are widely used.

All of our *Zoom into Soil* webinars are available to watch on both our website and YouTube channel. The successful series will continue into 2023 and remains free to attend for both members and non-members.

*“Great presenters, length of webinar was perfect and time of day suited me well”*

*“It was a great event, the topics were exclusively superb, a good conversation”*

# Supporting and encouraging the education of soil science

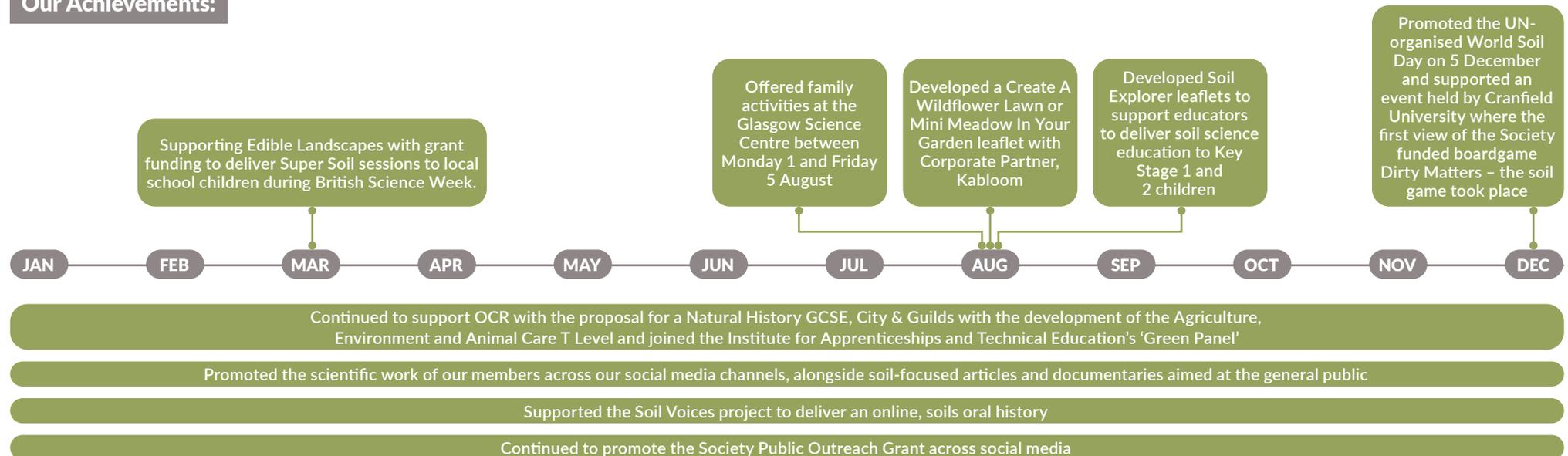
## Our Strategy said:

We will support the education of soil science across a wide range of individuals and age groups. We will provide information and resources to teachers, farmers, agronomists, growers, industry and land managers and the public via grants, outreach events, training courses and teaching materials.

## What we set out to achieve:

Deliver outreach events at the Glasgow Science Centre to support the World Congress of Soil Science	✓
Support the development of the Natural History GCSE and T Level in Agriculture, Land Management and Production	✓
Promote the Public Outreach Grant for Society members	✓

## Our Achievements:



## CASE STUDY

### Glasgow Science Centre

Soil Explorers was an outreach event hosted by the British Society of Soil Science at the Glasgow Science Centre from Monday 1 – Friday 5 August. The event was supported by 15 volunteers from our soil science community who were onsite throughout the week to share activities developed by the Society's education committee. During the week-long event, over 7,000 people passed through the Glasgow Science Centre. This gave the opportunity for young people and families to be hands on with soil activities, engage directly with soil scientists, and to take home leaflets detailing experiments that they could complete at home.



#### Our Impact:

- » Almost 7,000 adults and children took part in our family activities at the Glasgow Science Centre during August
- » Over the course of the World Congress, the BSSS social media channels reached 137,000 impressions combined.

#### In 2023, we will:

- » Launch our outreach boxes, to support educators in delivering soils education to young people
- » Support the development of the Natural History GCSE, T Level in Agriculture, Land Management and Production and work with relevant apprenticeship groups to ensure soil is considered as part of the syllabus
- » Attend external outreach events including Open Farm Sunday
- » Develop a project to link cultural voices to the Scottish soils landscape.

# World Congress of Soil Science

The World Congress of Soil Science 2022 (WCSS 22) took place from 31 July – 5 August in Glasgow.

Despite taking place against a backdrop of Covid 19 and Brexit, the event was attended by 1,700 soil scientists from around the globe.

In late 2020 we established a separate charity, the World Congress of Soil Science 2022, with full responsibility for delivering the event and its legacy. It has written a separate Annual Report.

Between 2020 and 2022, the Society supported the Congress by providing £200,000 funding towards the event's delivery and providing in-kind resources in the way of executive and volunteer support and undertaking communications activity.

At the end of 2022, the Trustees of The World Congress of Soil Science 2022, wrote to the Trustees of the British Society of Soil Science confirming that the Congress had delivered the Society a significant surplus and setting out the legacy activities that the Trustees would like to see delivered (see page 20).



## Soil Science Tartan

To support the delivery of the event, the British Society registered the 'Soil Science Tartan', an exclusive weave which can only be produced by the Society. The Tartan represents a valuable cultural and financial legacy from the Congress and will continue to be available to purchase via the Society online shop.



Members of the UK Soil Judging team

## Congress Achievements:

- » The Opening Ceremony was hosted at the **Glasgow Science Centre**, attended by our Patron **His Royal Highness the Duke of Gloucester** and the Depute Lord Provost of Glasgow
- » Five plenary sessions took place featuring Dr Ranveer Chandra, Professor Suzi Huff Theodoro, Professor Ismahane Elouafi, Professor Debra Roberts and Professor Peter Gregory as the first ever President's Invited Lecture
- » 387 oral presentations and 943 poster presentations were given
- » Held the first ever Policy Day at a World Congress. Attended by over 100 delegates, the session was standing room only and featured a diverse range of speakers each discussing how research can be put into practice
- » Delivered an outstanding Gala Dinner at the Kelvingrove Museum and Art Gallery, with 400 delegates entertained by a traditional ceilidh
- » 68 volunteers supported the delivery of the Congress and associated activities
- » Finalised work on an environmental impact assessment, which is the first such assessment of an international congress that we are aware of. This included a session with Alexandre Couvez from Cranfield University and Aileen Crawford from the Glasgow Convention Bureau on the importance of sustainability in delivering international events



Bruce Lascelles



Sarah Garry, Bruce Lascelles, Laura Bertha Reyes Sanchez and the Depute Lord Provost of Glasgow

- » Awarded a £5,000 grant to a team of interdisciplinary researchers to solve a soil data problem
- » Held a dinner for international experts and policy makers, including Canadian Senators, the National Soils Advocate of Australia and IPCC member, Debra Roberts
- » Delivered exceptional training and a Soil Judging Competition to Early Career Scientists
- » Delivered six sold-out short tours to the Isle of Arran, Dumfries House and the CCA, Stirling University and the surrounding areas, Edinburgh, and Glasgow, and two overnight tours one around the North of Scotland and the other Galloway.
- » Held arts exhibitions from diverse organisations, including the **Scottish Potters Association**, **The Barn gallery** and the **Centre for Contemporary Arts**, within the Congress exhibition hall
- » Held five fringe events in partnership with organisations such as the Ecological Continuity Trust (ECT) and STARS
- » Supported the delivery of the *We are Compost/ Composting the We* exhibition, which was shown at the Centre for Contemporary Arts in Glasgow until 12 September
- » Showcased an exhibition and sponsored sessions from **UK Research and Innovation** and **Wiley**
- » Attended a press conference held during the World Congress to highlight the latest scientific research to members of the press
- » Hosted networking opportunities through the Early Career Networking Event and Society's AGM
- » Funded four Early Career members chosen to attend the Soil Judging Competition as the UK team – Hazel-Rose Cabbage, Katy Faulkner, Amy Lewis, and Matt Tarnowski, alongside team coach Ben Butler
- » Opened the Soil Judging Competition training programme to non-competitors for the first time
- » Produced Equality, Diversity and Inclusion monitoring data of delegates who attended and presented at the event
- » Supported Propagate with the delivery of Soil and Soul, a workshop programme supported Glaswegians to engage with the soil
- » Held our first face-to-face Board, Council, Publications and Grants & Awards Committee meetings for over three years
- » Held our Closing Ceremony with a special video from **His Royal Highness The Prince of Wales** on why soil is so important in delivering climate solutions.





## CASE STUDY

### 2023 Congress Legacy Activities

In December 2022, the Trustees of the *World Congress of Soil Science 2022* wrote to our Board, setting out how it expected the surplus generated from the Congress to be spent. The restricted funds will be used between 2023 and 2030 and requested that they were spent to enhance to enhance legacy activities of the Congress, to scientific and non-scientific audiences. Where projects would be 'place-based', these should take place in Glasgow or Scotland initially, and rolled out more widely later.

The Trustees requested that BSSS seed-fund activities which would become self-funded in the long-term including:

- a) A digital pit archive to digitise the activities from the post-congress tours, and the cancelled pre-congress tour, and allow them to be accessible by a wider audience
- b) A number of grants to fund full attendance of Early Career members to the Chinese (2026) and Canadian (2030) World Congress of Soil Science
- c) Publish international case studies demonstrating the practical importance of investing in soil. These case studies should show soil's importance from a wide-range of viewpoints, including international food supply-chains, to construction, to smallholder farming
- d) Publish the environmental impact assessment from the World Congress and continue to support IUSS and other international congress-holding societies, to reduce their own environmental impacts
- e) A series of 'Listening Benches' in the Glasgow area, linking personal 'soil voices' of the area with an overview of the local soil landscape.

# Inspiring the future generations of soil scientists

## Our Strategy said:

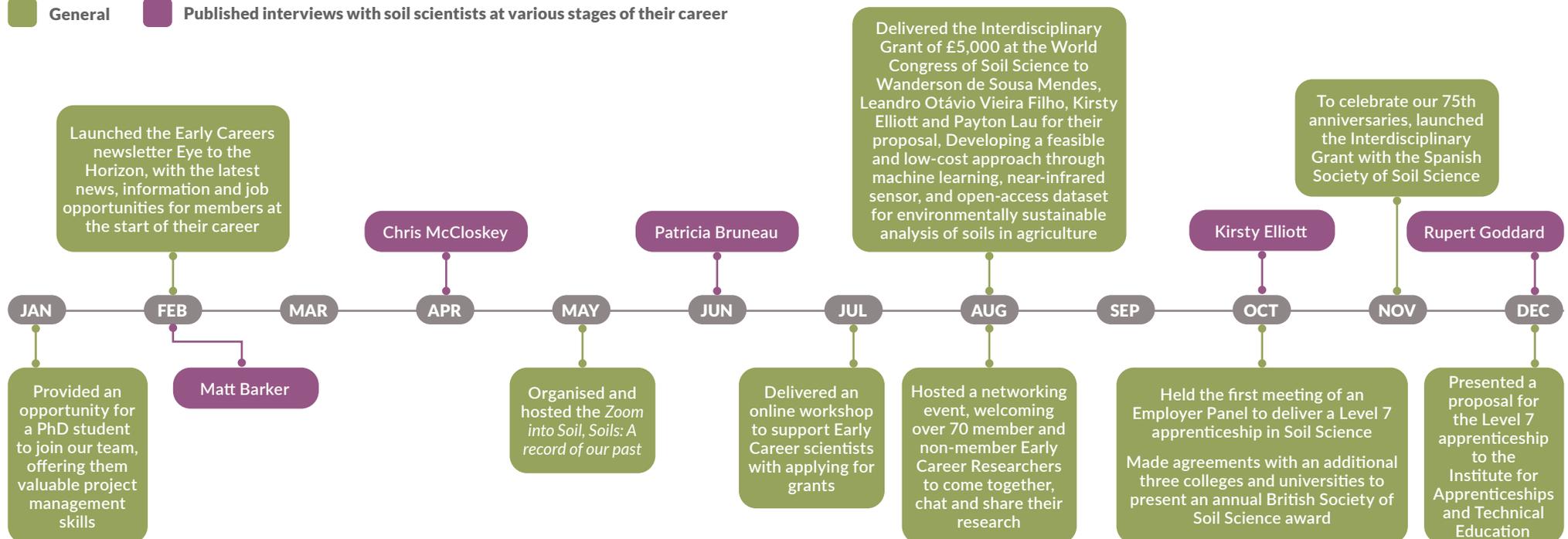
We will continue to support the development of early career (EC) members working in soil science. We will fund a biennial conference dedicated to ECs and give them prominence at our Society Annual meeting. Through our education committee, we will support teachers and engage in community projects to inspire the next generation of soil scientists.

## What we set out to achieve:

Implement a bi-monthly newsletter for EC members	✓
Deliver the Interdisciplinary grant at the World Congress of Soil Science	✓
Deliver a networking event for Early Career practitioners and researchers at the World Congress	✓

## Our Achievements:

■ General
 ■ Published interviews with soil scientists at various stages of their career



# Inspiring the future generations of soil scientists CONTINUED

## Our Impact:

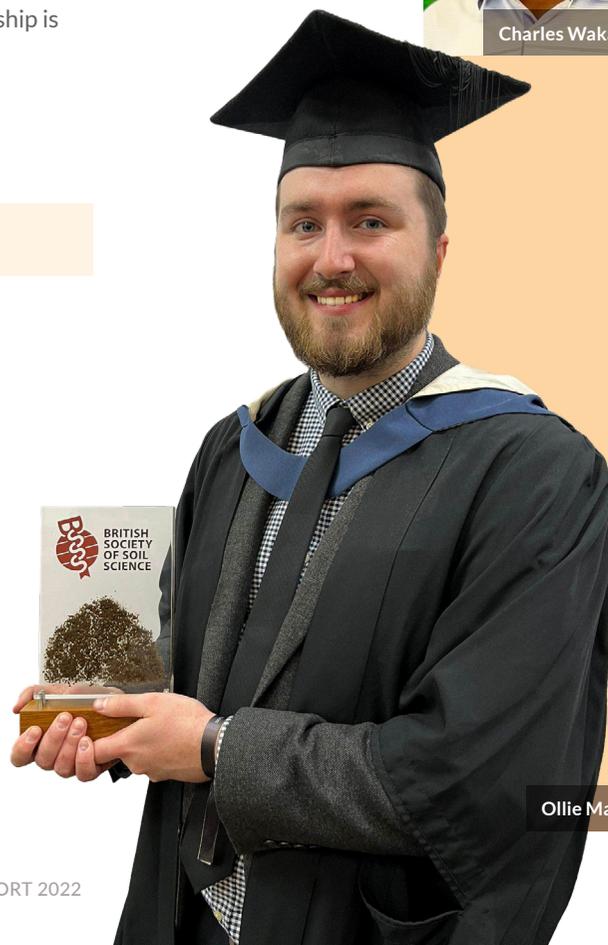
- » The Early Careers networking event held during the World Congress of Soil Science was attended by over 70 people from across the world
- » Average open rate of 59% and average click rate of 13% for Eye to the Horizon
- » Maintained our EC membership at 220 members
- » 13 employers on the apprenticeship development group, committed to offering apprenticeships once the Level 7 Soil Science Apprenticeship is launched in 2024.

## In 2023, we will:

- » Host the Early Careers Conference.



Charles Wakabotsa



Ollie Margetts

## CASE STUDY

### 2023 Society Awards

BSSS is proud to sponsor a prize and trophy within academic institutions which are presented to students based on criteria set with each one. The 2022 award winners each received two years' Society membership as part of their prize:

**Gaurav Gorakh Shelar** – Most Promising Soil Scientist at Cranfield University

**Jenna Higgins** – Postgraduate Award at Harper Adams University

**Katrina Woodfield** – Undergraduate Award at Lancaster University

**Fiona Dowson** – Best Student in Soil Science at Royal Agricultural University

**Jack Horne** – Outstanding performance in a soil science based Honours or MSci project at University of Aberdeen

**Charles Wakabotsa** – Outstanding performance in a soil science based MSc project at University of Aberdeen

**Ollie Margetts** – Best soil-science related dissertation at University of Reading.



Katrina Woodfield



Jenna Higgins

## Grant recipients:

The following grants were awarded in 2022, supporting members and organisations to develop soil science skills. Outcomes from the projects will be shared with members in 2023.



Paul Hallett and Jack Horne (right)

NAME	GRANT	REASON	AMOUNT
Ana Natalio	Early Career Conference Grant	To attend WCSS 2022	£500
Anna Abramova	Early Career Conference Grant	To attend WCSS 2022	£500
Carmen Sanchez-Garcia	Early Career Conference Grant	To attend WCSS 2022	£500
Catriona Willoughby	Early Career Conference Grant	To attend WCSS 2022	£300
Deevena Elias	Early Career Conference Grant	To attend WCSS 2022	£150
Dimitrios Gaitanis	Early Career Conference Grant	To attend WCSS 2022	£150
Francis Durnin-Vermette	Early Career Conference Grant	To attend WCSS 2022	£500
Helena Ripley	Early Career Conference Grant	To attend WCSS 2022	£500
Jennifer Davies	Early Career Conference Grant	To attend WCSS 2022	£500
Katy Faulkner	Early Career Conference Grant	To attend WCSS 2022	£500
Lucy Weidner	Early Career Conference Grant	To attend WCSS 2022	£500
Luke Fountain	Early Career Conference Grant	To attend WCSS 2022	£500
Mamunur Rashid Sarker	Early Career Conference Grant	To attend WCSS 2022	£500
Mary Hodgson	Early Career Conference Grant	To attend WCSS 2022	£500
Matthew Tarnowski	Early Career Conference Grant	To attend WCSS 2022	£500
Nancy Muringai	Early Career Conference Grant	To attend WCSS 2022	£500
Mohammad Robel Hossen Patwary	Early Career Conference Grant	To attend WCSS 2022	£500
Rose Boyko	Early Career Conference Grant	To attend WCSS 2022	£150
Samuel Booth	Early Career Conference Grant	To attend WCSS 2022	£500
Silvia Arpano	Early Career Conference Grant	To attend WCSS 2022	£500
Vanessa Silva Melo	Early Career Conference Grant	To attend WCSS 2022	£500
Edible Landscapes	Field Equipment	To deliver Super Soil sessions during British Science Week	£500
Edible Landscapes	Innovation	To deliver Super Soil sessions during British Science Week	£500
Emily Cooledge	Brian Chambers Soil Fund	Assessing the effect of herb- and legume-rich multispecies leys on soil structure using X-ray Computed Tomography	£2,046
Jennifer Davies	Brian Chambers Soil Fund	SERA-17 Summer Meeting	£1,500
Wanderson de Sousa Mendes, Leandro Otávio Vieira Filho, Kirsty Elliott and Payton Yau	WCSS Interdisciplinary Grant	Developing a feasible and low-cost approach through machine learning, near-infrared sensor, and open-access dataset for environmentally sustainable analysis of soils in agriculture	£5,000
Anindya Majhi	Brian Chambers Soil Fund	Quantifying soil carbon and nutrient losses due to gully erosion in India	£2,500

# Ensuring high standards of professional practice for those working with soils

## Our Strategy said:

We will provide dedicated training courses such as our Working with Soils series, as well as industry focused events in support of Continued Professional Development, providing high professional standards and assisting with maintaining Chartered Scientist registration.

## What we set out to achieve:

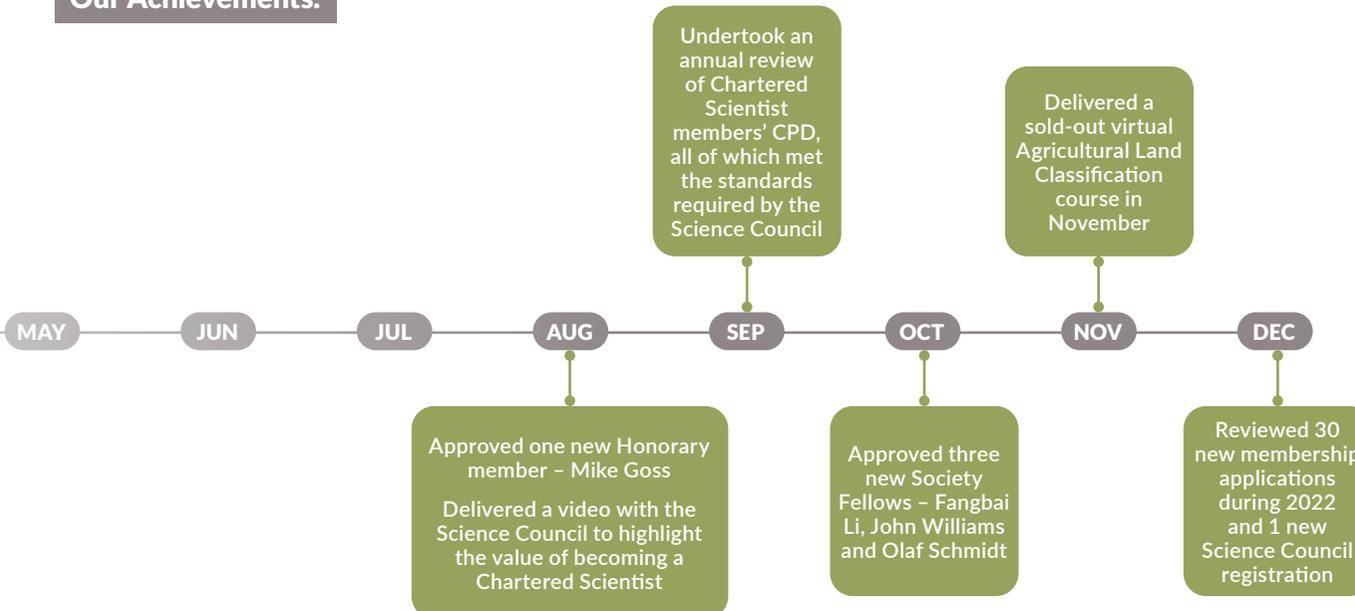
Undertake an annual review of CPD returns.	✓
Support IUSS with the development of international competence standards. <i>IUSS presented initial findings at the World Congress of Soil Science and has yet to agree next steps.</i>	✗
Deliver an Agricultural Land Classification virtual course.	✓

## CASE STUDY

### Honorary Member

Congratulations to Professor Mike Goss who was elected as an Honorary Member of the Society at the Society's AGM in August 2022. Mike has had a long and distinguished career in soil science involving research, education and outreach, and since his retirement in 2009, has continued to be fully engaged with the Society. He is a current member of the Grants & Awards Committee and we are delighted that he has now been appointed by members as an Honorary member.

## Our Achievements:



Jack Hannam and Mike Goss

## Our Impact:

- » Increased our membership from 853 in 2021 to 883 in 2022, a 3.5% increase and the Society's highest ever number of members
- » 100% of people rated the ALC course as good or excellent.

## In 2023, we will:

- » Identify the current training and qualifications available for practitioners in soil science and propose how any gaps could be filled
- » Continue the development of the Level 7 Soil Science Apprenticeship
- » Deliver a number of Working with Soil training courses
- » Scope Continued Professional Development (CPD) recording mechanisms.

## CASE STUDY

### Chartered Scientist

#### What is Chartered Scientist (Csci)?

The Chartered Scientist designation allows professional scientists to be recognised for their competence, ability and integrity and serving the public interest. Registration is a voluntary means of demonstrating your professionalism and involves being held to account by your peers for your abilities and adherence to ethical standards. Chartered Scientists are committed to keeping their skills and knowledge up to date through continuing professional development (CPD) which is submitted for review on an annual basis. The main aim of CPD for registrants is to maintain, develop and broaden scientific and technical knowledge and acquire professional life skills.

#### Benefits of professional registration

Professional registration provides independent recognition of your skills, meeting the standards required to join the global community of professional scientists.

**Get recognised** – Registration recognises your knowledge and experience in addition to any other qualifications you may have. It captures on-the-job experience and shows the level of competence you have as a practising scientist.

**Reflect and shine** – Registration and chartership supports and encourages you to reflect on what you have achieved in your career so far.

**Demonstrate your ethical credentials** – Registration tells others that you are committed to working to high ethical standards and gives them trust and confidence in you as a professional scientist.

**Be the one that stands out** – Registration is a mark of quality and competence that is sought after by employers.

**Become a leader within your field** – Registration is a mark of excellence and reflects stages in your career as a scientist, encouraging you to work towards high standards of professionalism, skills and knowledge.

**Join a worldwide community of cross-disciplinary scientists** – Science Council registered scientists are spread across many different countries and have the opportunity to volunteer as committee members, registrant champions and more.

#### How to apply

Chartered Scientist (CSci) is open to all Full and Fellow members of BSSS who work in the practice, application, advancement or teaching of science and have the appropriate combination of qualifications and experience. To apply for Chartered Scientist status, please download the application form, criteria and guidance notes on our website: [www.soils.org.uk/education/chartered-scientist](http://www.soils.org.uk/education/chartered-scientist).



Science  
Council

# Leading on the social and environmental responsibilities of a contemporary society

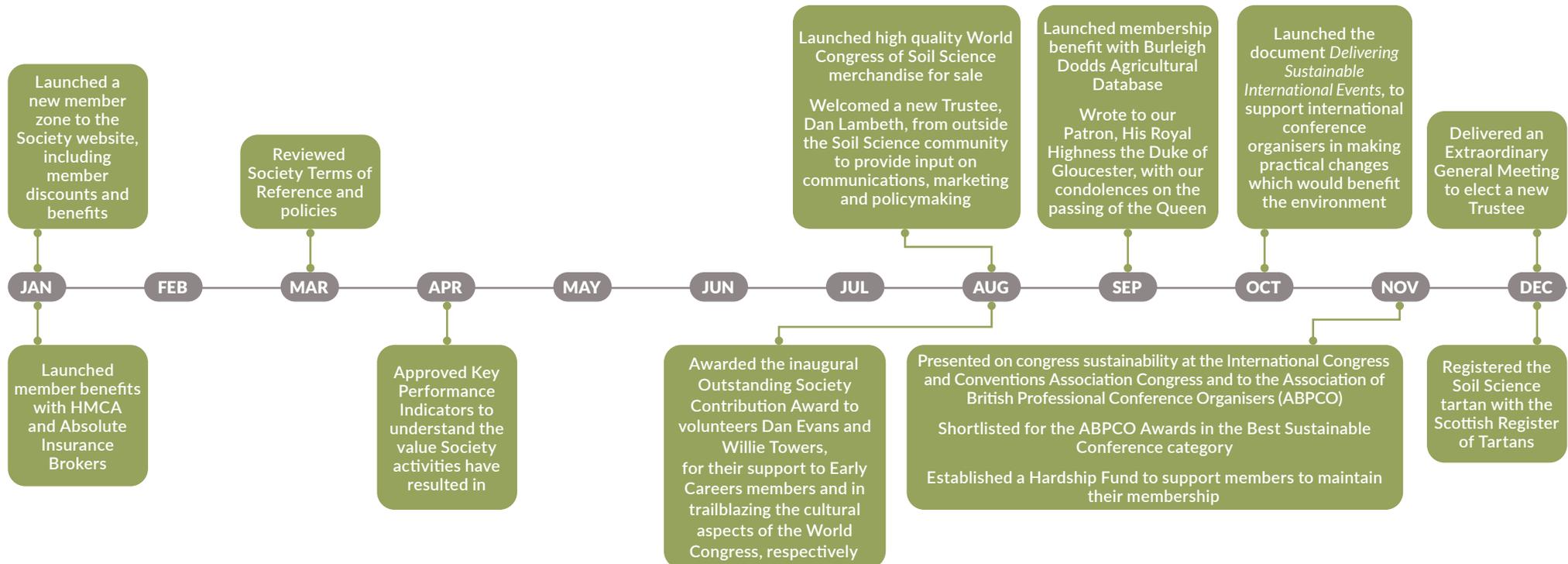
## Our Strategy said:

We will provide leadership in the areas concerning the socio-economic responsibilities of a modern Society. We will ensure all members have equality of opportunity, irrespective of age, race, disability, sex, religion or other protected characteristics. We will ensure our activities are planned with issues of equality, inclusion and diversity at the forefront of all decision making and that we act environmental responsible and achieve carbon neutrality where possible.

## What we set out to achieve:

Agree our long-term Society vision and key performance indicators (KPIs)	✓
Introduce members only pages on the Society website	✓
Ensure we continue to have up to date Terms of Reference and policies	✓
Award an Outstanding Volunteer Contribution Award	✓
Develop quality Society and World Congress merchandise and arrange sale	✓

## Our Achievements:



### In 2023, we will:

- » Review our Society vision and Key Performance Indicators (KPIs) to ensure they remain fit for purpose
- » Ensure we have up to date Terms of Reference and policies
- » Introduce an Environmental Working Group to consider how the Society can achieve its environmental targets.



The 2022 Society Council

## CASE STUDY

### Sustainable Events

Throughout the process of developing the World Congress of Soil Science, we were clear that we needed to ensure the event was as sustainable as possible. At an operational level, we embedded sustainability into all aspects of our operations: from choosing congress food which was 90% locally sourced, to providing non-plastic merchandise made in the UK and either recyclable or compostable on disposal.

We came across significant challenges on our journey: although we used compostable packaging for our lunches, Scotland did not have recycling facilities for compostable packing locally, meaning it was disposed of into landfill.

In the meantime, the challenges we came across during the delivery of the Congress as well as our successes, have been turned into our document, *Delivering Sustainable International Events*. The document, which has been co-branded with the International Congress and Convention Association (ICCA), was launched by Sarah Garry, during ICCA's 61st Annual Conference in November 2022.

Our recommendations, which set out the key considerations for both event organiser, destinations and governments, has been well received by the industry where there is a need for case studies from organisations such as ours, which have a clear idea of what it means to live by sustainable values. As per the recommendations from the World Congress of Soil Science trustees, we will continue to encourage others to consider our recommendations in their event planning, to ensure a congress legacy which if implemented by the international events sector which is worth \$1,135.4 billion, will have a significant impact on humanity's global impact.

# About us

The British Society of Soil Science (BSSS) was founded in 1947 and is an established international membership organisation and charity committed to the study of soil in its widest aspects. The society brings together those working within academia, practitioners implementing soil science in industry and all those working with, or with an interest in soils.

Research on soils and enhanced understanding and engagement with soils is essential for agricultural, landscaping, construction, remediation, conservation and archaeological projects, as well as policy direction on critical topics such as climate change.

We promote research and education, both academically and in practice, and build collaborative partnerships to help safeguard our soil for the future. This includes hosting the World Congress of Soil Science 2022 in Glasgow, where those

with an interest in soil science can meet to discuss the critical global issues relating to soil including; managing soils sustainably, preserving its ecosystem, and mitigating against climate change.

Anyone with an interest in soil is welcome to become a member and attend our conferences and webinars, receive complimentary access to our two scientific journals, the European Journal of Soil Science and Soil Use and Management and a host of other benefits.

Thank you to our Corporate Members and Donors

**Absolute.**  
Insurance Brokers



**ARCADIS**



**kabloom**  
INSPIRING DESIGN WITH NATURE IN MIND



## Join us on social media:



@BritishSoilScience  
@soilunderfoot  
@WCSS2022



@Soil\_Science  
@WorldSoils2022  
@ECSoil\_Sci



@britishsocietyofsoilscience



@british-society-of-soil-science



@BritishSocietyofSoil



# Our People

## Our Trustees

### **Bruce Lascelles**

President 2021/22

### **Sacha Mooney**

Past President Past President (until 31 December 2022)

### **Jack Hannam**

Incoming President

### **Tom Aspray**

Professional Practice Committee Trustee (until 31 December 2022)

### **Anirban Sarkar**

Finance Trustee

### **Brian Westbury**

Governance Trustee (until 14 April 2022)

### **Dan Lambeth**

Marketing, Communications and Policymaking Trustee (from 2 August 2022)

## Our Executive Office

### **Sarah Garry**

Executive Officer

### **Christine Berrill**

Project Coordinator

### **Natalie Coles**

Senior Administrative Assistant

### **Dominic Simms**

Communications, Marketing and Events Coordinator (from 8 November 2022)

### **Joe Collins**

MIBTP Professional Internship PhD Student (4 January to 19 August 2022)

## Our Council

**Bruce Lascelles** (Trustee and Chair)

**Nikki Baggaley** (Scottish Soil Discussion Group Chair) – from 10 December

**Sarah Buckingham** (Scottish Soil Discussion Group Chair) – until 10 December

**Chris Cantle** (Northern Soils Network) – from 2 August

**Robert Cochrane** (Ordinary Council Member) – until 31 December 2022

**Lynda Deeks** (South West Soil Discussion Group Chair)

**Jenni Dungait** (Editor, European Journal of Soil Science)

**Kirsty Charles** (Early Careers Chair)

**Leila Froud** (South East England Soil Discussion Group Chair) – until 10 December

**Sarah Garry** (Executive Officer)

**Iain Gould** (Midlands Soil Discussion Group Chair)

**Jack Hannam** (Trustee)

**Deyi Hou** (Editor, Soil Use and Management)

**Kara Marsden** (Chair, Welsh Soils Discussion Group) – from 2 August

**Manoj Menon** (Northern Soil Network Chair) - until February 2022

**Sacha Mooney** (Trustee) – until 31 December 2022

**Mark Nason** (Ordinary Council Member)

**Lois Phillipps** (Education Committee Chair)

**Xavier Portell-Canal** (Ordinary Council Member) – until 31 December 2022

## Our Committees

Our committees are led and managed by our volunteers who deliver the strategy of the Society through the groups. Thank you to all of our volunteers who give their time to our various committees in 2022.

The Chair of each Committee is also a member of the Society Council.

### **Early Careers Committee**

Chair: Kirsty Charles

### **Education Committee**

Chair: Lois Phillipps

### **Grants and Awards Committee**

Chair: Sacha Mooney (until 31 December 2022)

### **Professional Practice Committee**

Chair: Mike Palmer (until 31 December 2022)

### **Publications Committee**

Chair: Sacha Mooney (until 31 December 2022)

### **World Congress of Soil Science 2022 Working Group**

Chair: Bruce Lascelles (until 31 December 2022)

## Our Regional Groups

We operate six Regional Groups to meet the needs of our members in different parts of the country. Each of the Regional Group Chairs is also a member of the BSSS Council and implements the Society's strategy, regionally.

### **Midlands Soil Discussion Group**

Chair: Iain Gould

### **Northern Soil Network**

Chair: Chris Cantle (from August 2022)

### **Scottish Soil Discussion Group**

Chair: Nikki Baggaley (from December 2022) / Sarah Buckingham (until December 2022)

### **South East England Regional Group (SEESOIL)**

Interim Chair: Leila Froud (until December 2022) / vacant

### **South West Soils Discussion Group (SWSDG)**

Chair: Lynda Deeks

### **Welsh Soil Discussion Group**

Chair: Kara Marsden (from August 2022)



**BRITISH SOCIETY  
OF SOIL SCIENCE**

## Contact us

### British Society of Soil Science

Building 42A, Cranfield University  
Cranfield  
Bedfordshire  
MK43 0AL

email: [admin@soils.org.uk](mailto:admin@soils.org.uk)  
phone: + 44(0) 1234 752983

**[www.soils.org.uk](http://www.soils.org.uk)**

The British Society of Soil Science is a limited company, registered in England and Wales No. 7110309 and a Registered Charity No. 1134456.