# Terms of Reference

Expert Panel on the Treatment of Digital Sequence Information in the post-2020 Global Biodiversity Framework

Register your interest in joining the Expertise Panel here: <https://bit.ly/DefraDSIExpertisePanel>

### Glossary

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| Terminology | Definition |
| ABSCAPECBD | Access and Benefit-Sharing (e.g., of genetic resources)Capabilities in Academic Policy EngagementConvention on Biological Diversity |
| COP15 | Fifteenth meeting of the Conference of the Parties |
| DEFRA | Department for Environment, Food and Rural Affairs |
| DSIOEWG | Digital Sequence Information Open-ended Working Group |

### Background/policy context

Digital sequence information (DSI) refers to data that is produced from activities aimed at understanding the molecular genetics of organisms. Technological advances in recent decades have allowed users to access such data derived from a genetic resource, such as DNA sequences, without the need to physically access the genetic resource. DSI is stored on open access databases and is core to activities across disciplines within academia, industry and other stakeholders.

The availability of this resource without restriction has led to issues surrounding fairness and equity. In order to strengthen fair and equitable access and benefit sharing (ABS) under the Convention on Biological Diversity (CBD), the Nagoya Protocol on ABS was ratified in October 2014, requiring anyone wanting to access or use a genetic resource from a country that is party to the Protocol to meet pre-determined terms or requirements. However, since there is not a benefit sharing mechanism in place for DSI, some believe that any monetary benefits that could arise from the utilization of DSI are not being shared fairly and equitably. The ABS issues associated with DSI have the potential to disrupt negotiations, particularly during the Fifteenth meeting of the Conference of the Parties (COP15) to the CBD, which will see the agreement of an ambitious post-2020 global biodiversity framework.

Mechanisms that provide monetary benefit sharing of DSI often have implications for the currently unrestricted, open-access nature of DSI, which is a critical component for research in the life sciences and many who use DSI. With millions of datasets being uploaded each year to public databases, determining the origin of a sequence is challenging, creating issues around traceability with the prospect of affecting research. Furthermore, there are a multitude of non-monetary benefits arising from the use of DSI, including rapid data sharing and innovation and the opportunity for capacity building and technology transfer.

If left unresolved following COP15, further countries may begin to regulate the use of DSI (some have already put in place regulations), creating bureaucracy for users but enabling a degree of benefit sharing. If an international policy mechanism for the sharing of benefits from DSI is adopted at COP15, it is important that the implications for research are first fully considered.

The process by which DSI is treated within the CBD will be influential in informing other similar frameworks under, for example, the World Health Organization and the Food and Agriculture Organization.

### Aim and outcomes of expert panel

CAPE, Capabilities in Academic Policy Engagement, is a Research England funded research and knowledge exchange project between the universities of UCL, Cambridge, Manchester, Northumbria and Nottingham who are exploring innovative ways of strengthening science-policy engagement in the UK. CAPE are seeking opportunities to form pop-up science expert groups to advise government on specific policy issues. These consist of a panel of experts, who can provide ongoing expert advice on a set of questions and topics set by their policy customers.

The aim of this project is to provide further insight on the implications of different policy options of DSI under the CBD for a variety of stakeholders, and, if possible, determine the ideal option for the majority of Parties.

The questions for the expert panel are categorised into essential, important and desirable in the table below. **Themes 1 to 3 refer to access, benefit sharing and capacity building, respectively.** Academics that feel they can address one or more themes are welcome to participate in the panel.

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| Priority | Theme | Questions for panel |
| Essential | 1 | The importance of DSI remaining open access for stakeholders (academia, the commercial sector, Parties) |
| 1 | What are the implications of traceability on policy options? |
| 2 | Which access policy option is likely to best promote benefit-sharing? For example this could be through a bilateral, transactional model or through an open access multilateral benefit sharing mechanism, where commercial DSI use is regulated with monetary benefits going a regional fund.  |
| 3 | What are the international capacity building needs regarding access, use, generation and analysis of DSI? |
| 1 and 2 | Which policy option addresses the right balance between benefit-sharing and open access? |
| Important | 1 | How is DSI used by the scientific community, and how will this use evolve? |
| 1 | How can we ensure that any policy mechanism under the CBD won’t hinder access for stakeholders, or result in an overly bureaucratic system? |
| 3 | What role does the scientific community play in building international capacity on digital sequence information (generation and application)? |
| Desirable | 1 | What are the existing access issues? |
| 1 | What does open access to DSI mean? (How does this compare to other options e.g., free access?) |
| 3 | What capacity building is already happening (e.g., University joint programmes, transfer of knowledge/tech)? |

 Anticipated outcomes of the project include:

* **Collaborative and inclusive discussion of options and agreement of best approaches** through two virtual workshops with academics from across disciplines, to discuss options and improve robustness and legitimacy of the UK’s negotiating position to other Parties. This would be aided if there was representation in the panel from:

1) Users of DSI that can provide feedback on the feasibility of proposed policy options under the CBD

2) Experts on the issues surrounding equity and international benefit sharing, either monetary or non-monetary (e.g. knowledge transfer/scientific cooperation)

3) Academics from developing countries

**Output:** Academic-policy engagement and knowledge exchange

**Output:** Workshop summary papers

**Output:** Letter of recognition from Defra to experts

* **Careful consideration of all views** will be undertaken through surveys prior to each workshop. Even with strong facilitation, it is often the case that some voices dominate in virtual workshops. Consideration of views outside of these workshops will help improve representation and help shape workshop discussions.
* **An informed recommendation for the best approach to inform the UK negotiating position** will be compiled through the above processes into a report. A shared document will allow for live collaboration amongst academics during this process, with oversight from Defra and CAPE.

**Output:** Report of recommendation to help Defra shape UK position

Workshop Formats

Workshops will be virtual and will run for 2 hours. They will be loosely based around the following themes, but will also be shaped by ongoing discussions and outcomes from OEWG 3.2:

Workshop 1 – Access

Workshop 2 – Benefit-sharing / capacity building

Surveys prior to workshops will be sent to each of the panellists to help shape discussion points in these workshops, and agendas will be circulated following receipt of these surveys. Workshops will be facilitated by CAPE.

Workshop content is subject to change and will be determined by outcomes of the OEWG3.2 meeting in March 2022, and by the distribution of expertise in the panel.

A further workshop may be required depending on OEWG outcomes.

Timelines

The below timeframe is subject to Defra, CBD, CAPE and University schedules. It should also be noted that outcomes of the March OEWG 3.2 or COP15 in late 2022 may alter timings or content of the expert panel. Note that COVID-19 has disrupted the negotiating schedule, and exact dates are to be confirmed (see latest press release regarding January meeting postponement [here](https://www.cbd.int/doc/press/2021/pr-2021-12-02-sbstta24-sbi3-wg20203-en.pdf)). In the eventuality of DSI remaining an issue beyond COP15, there may be scope to extend the panel, perhaps in an ad-hoc capacity.

* Formation of expert panel: Dec 2021 / Jan 2022
* Kick-off meeting (max. 1 hour): mid/late Jan 2022
* Circulate workshop 1 survey: late Jan 2022
* Workshop 1: mid/late Feb 2022
* Ad-hoc support: March 2022 (OEWG 3.2, exact dates TBC)
* Circulate workshop 2 survey: late March 2022 (based on outcomes of OEWG 3.2)
* Workshop 2: mid April 2022
* First draft of report of recommendations: early May 2022
* Final report: end May 2022
* Close-out meeting: May/June 2022
* Potential ad-hoc support at COP15: Dates TBC (likely from September)

Key CBD dates are as follows:

* OEWG3.2 March 2022 (exact dates and DSI meeting dates TBC)
* COP15 awaiting new dates following postponement of OEWG 3.2 (previous dates 25 April - 8 May 2022)

Diversity and inclusion

We welcome hearing from a variety of perspectives, both from across disciplines, backgrounds and career stages.

Confidentiality

Discussions and outputs from this panel will include reference to the UK’s negotiating position and, as such, individuals within the expert panel must not share findings externally.

Secretariat

The Capabilities in Academic Policy Engagement Project ([CAPE](https://www.cape.ac.uk/)) will be supporting Defra in providing the secretariat, and will be monitoring and evaluating the process.

For any initial queries, please contact the CAPE Coordinator, Kayleigh Renberg-Fawcett: k.renberg-fawcett@ucl.ac.uk