Minutes of 84th UK Chemical Stakeholder Forum meeting, 21 April 2022, Virtual Conference

1. Chair's welcome

The chair welcomed all to the meeting. See Annex A for attendance and apologies.

The Chair explained that the meeting was virtual due to the current circumstances of the Coronavirus pandemic (Covid-19). The Chair of the meeting was drawn from the Steering group on a rotating basis and the meeting was held under Chatham House rule.

The draft minutes from the 83rd CSF October meeting (UKCSF/21/11) were approved.

2. Chemicals and Climate Change: What are the connections?

CHEM Trust presented on 'Chemicals and Climate Change: What are the connections?' See Annex B.

An attendee asked if there was an additional category of potential impact that should be considered around how new mitigation technologies could cause an increase in existing release of pollutants or cause new sources of pollutants. CHEM Trust responded that a report was published in 2021 by the United Nations Environment Programme, Stockholm, and Mercury Conventions, found that some negative consequences were apparent but, that this issue, including the trade-offs involved continued to be explored.

Another attendee commented that it was important to profile the trade-offs between different emissions, noting that there were choices to be made. They asked to what extent the focus on reducing carbon dioxide (CO2) emissions could give rise to increased risks to human health and the environment and changing patterns of chemicals production. CHEM Trust explained that a holistic view was required, and despite some technology areas resulting in a negative impact, positive trade-offs may also be achieved.

Finally, an attendee highlighted that rather than just accepting hugely negative trade-offs as the only option, general consumption needed to be reduced as a key mitigating action.

3. Chemicals, greenhouse gases & biodegradability

Unilever presented on 'The truth about the hidden carbon in our chemicals and impact on climate'. See Annex C.

An attendee suggested that methane (CH4) was a more significant break down product than CO2, as it had a greater climate change impact over the first 20 years. Due to specific chemical degradation pathways, degradation into methane could be the dominant pathway in some cases. They noted that assessment boundaries need to be well defined to facilitate useful comparisons and guidelines for these would be welcomed. Unilever agreed that carbon emissions should be looked at more holistically.

Another attendee asked for clarification on using single use waste plastic as a feedstock and if that counted as recyclable carbon. Unilever replied that within the carbon rainbow

there were many different carbon providences and feedstocks with a range of benefits, one of these was pyrolysis of single use plastics. The ethos was that a waste stream was given a second life.

An attendee noted that it could be preferable to put carbon in the ground than burn it. Unilever explained that the carbon rainbow was global, and in some parts of the world, plastic management was not as advanced compared to the UK. The first principle was to avoid the use of fossil carbon, however, considering the unintended consequences of that.

Finally, an attendee cautioned against inflating the importance of the 20-year impact for CH4, as the planet would continue to warm after this. The end goal was to stabilise the planet's temperature, and this could not be achieved without reaching net zero on longer-term fossil-based carbon emissions. Unilever responded that embedded carbon ultimately becomes greenhouse gas, more than packaging and plastics, and this message was under-recognised.

4. Solutions taken up by industry

Chemicals Industries Association (CIA) presented on 'The UK Chemical Industry's Net Zero Pathway'. See Annex D.

An attendee asked whether there was scope for the Climate Change Agreement (CCA) scheme targets to be more ambitious, noting that the chemicals sector had overachieved. CIA explained how targets were formulated and agreed internally, working between individual sites, government, and consultants. They noted that the government have described the targets as challenging but achievable. There had been overachievement, perhaps due to the long schemes during which technology changed and improved but, CIA were consulting on a new CCA scheme and were looking at a decarbonisation scheme rather than an energy efficiency one. They added that they would like to see a shift in incentivisation towards decarbonisation projects as a route to net zero rather than installing renewables on site.

The attendee also asked what total carbon price would make commercial sense for industry to switch to electrification. CIA explained that this was relative and the costs of installing technology to capture carbon had to be considered against the costs of expanding operations in nations where it would be cheaper to do so. They noted the importance of minimum standards and carbon border adjustments, stating that markets would need to be imposing similar carbon processes to make the investments work.

Another attendee asked about the government's Hydrogen Strategy and whether industry was backing 'blue hydrogen', produced using natural gas, over 'green hydrogen', produced using electrolysis. CIA responded that 'blue hydrogen' provided scale quickly but that, in time, the cost of 'green hydrogen' production was expected to come down. They added that the government had published its standard on this matter, which should support industry with planning.

5. The Mackay Carbon Calculator

BEIS presented background on the 'MacKay Carbon Calculator' and explained how to use the online tool. See Annex E.

RSC then presented an activity for attendees to complete using the MacKay Carbon calculator tool in breakout groups. See Annex F. Attendees completed the activity and presented feedback in plenary. See Annex G for a summary of the discussion.

6. Vision for the UK Chemicals Strategy

Cruelty Free International (CFI) presented on 'UK Chemicals Strategy: Cruelty Free International's Vision'. See Annex H.

An attendee commented that the UK had the opportunity to do things differently under UK REACH following EU Exit. They outlined instances where the European Chemical Agency (ECHA) had not allowed alternative non-animal testing methods and added that they were hopeful that the UK would allow these methods under UK REACH. They continued that there had been legal challenges to whether EU REACH data could be accessible to the UK post-EU Exit under the 12-year rule, with outcomes yet to be seen. There was concern that the UK might need to recreate data if existing EU REACH data was not shareable. CFI responded that ECHA had not been accepting reasonable adaptations to non-animal testing and expressed a hope that UK REACH might be more adaptable. For this to be achievable support would be needed from Defra and the UK government move further away from animal methods to non-animal methods.

Another attendee asked for clarity on what CFI meant by a government "U-turn" on animal testing in cosmetics. CFI explained that animal testing was only banned for the safety element of cosmetics however, this did not preclude animal testing for chemicals that would be used in cosmetics under other pieces of legislation, for example, animal testing was not banned under EU REACH. CFI clarified that although the legislation had not changed, in their view the policy position presented by the government had changed, as the UK position was aligned with EU.

7. Policy update

The Chair invited questions and comments on the CSF policy update paper, shared in advance of the meeting, for which UK government officials were present to respond.

Defra provided verbal updates to highlight upcoming items from the policy update paper. The first update was on an upcoming refresh of the Beyond 2020 Framework (UN SAICM) CSF sub-group. The second update was on upcoming authorisations under UK REACH.

An attendee asked what role the CSF would have in feeding into the new Chemicals Strategy. Defra responded that engagement with the strategy had been promising and they were planning collaborative workshops across late spring to early summer, that would cover a few themes including international, regulation and chemicals lifecycle, among others. Defra would update the CSF on the workshops, providing more information on what they would cover and how to get involved. The workshops would not be the end of the journey and Defra planned to continue engaging with CSF and its subgroups to shape thinking on

the Chemicals Strategy. Defra added that they would be keen to discuss this further and suggested having an item on this matter at the next CSF meeting.

Another attendee referenced item 3.2. of the paper and asked about timelines for the evaluation of the transition to UK REACH. Defra responded that preparations were underway, with the aim of finalising the report in September, and making this available externally at end of 2022 or beginning of 2023. Updates to the CSF would continue.

An attendee raised the mixture assessment factor that the EU had outlined in their Chemicals Strategy for Sustainability, highlighting that direct toxicity assessments (DTA) felt too broad brush in many instances. Defra responded that the EA were doing some evidence work to look at this and they were looking to make a decision that was fit for UK, not necessarily to replicate EU approach.

The attendee also asked whether the Rolling Action Plan (RAP) for 2023/24 would be confirmed by May 2023 as described on the HSE website, noting that this seemed rather late in the year to do so. Defra responded that the end of May deadline for each subsequent year was a statutory requirement and the actual target date for confirmation could be sooner and that was the intention. They added that HSE had published this year's plan in March.

Another attendee noted that they had been an observer at a UN environment assembly, where UN member states had adopted a resolution that a panel should be established to support action on chemical pollution. They asked for any detail on UK involvement and planning on this. Defra responded answered that that the UK was a co-sponsor of the motion, and they were keen to keep that momentum going. They added that they were waiting for the UN to announce the first working group, with four groups to be announced before the end of 2024. These working groups would determine the scope, funding, involvement of industry and other stakeholders, and the approach for the work programme. Work was underway to summarise the UK position on these points and Defra would be reaching out to the CSF for views once the sequencing of discussions is known.

8. AOB

An attendee highlighted an event on Improving the OECD Test Guidelines Process, in May and invited interested attendees to register for participation.

Another attendee alerted that the EU's restrictions road map would be published imminently, adding that thousands of chemicals were expected to be banned as a result.

The Chair thanked Defra, all the presenters and everyone for attending. The next meeting would be held virtually in late July, with the date to be confirmed in the coming weeks.

Annexes

Annex A: Attendance and apologies

Annex B: Chemicals and Climate Change: What are the connections?

Annex C: The truth about the hidden carbon in our chemicals and impact on climate

Annex D: The UK Chemical Industry's Net Zero Pathway

Annex E: MacKay Carbon Calculator

Annex F: MacKay Carbon Calculator – breakout activity

Annex G: Summary of discussion on the MacKay Carbon Calculator

Annex H: UK Chemicals Strategy – Cruelty Free International's Vision

For accessibility reasons, Annexes B, C, D, E, and G will not be made available on the UKCSF website. Copies can be obtained by contacting the Secretariat at Chemicals@defra.gov.uk.

Annex A: Attendance and apologies

Attendees

Alana Collis	Institute of Chemical Engineers
Andrew Brooks	Unilever
Angeliki Balayannis	University of Exeter
Anna Watson	CHEM Trust
Bud Hudspith	Unite the Union
Camilla Alexander-White	Royal Society of Chemistry
Caroline Rainsford	Cosmetic Toiletries and Perfumery Association
Catherine Gunby	Fidra
Ciara Dempsey	British Coatings Federation
Crea O'Hanlon	EUK Consulting
Danny Ditroia	Ricardo
David Carlander	Risk & Policy Analysts Ltd
David Gurden-Williams	3M
David Park	British Coatings Federation
David Taylor	WCA Consulting Ltd
Debra Jones	Knowledge Transfer Network UK
Dimitris Theodoridis	OMEX Environmental Ltd
Elisabeth Laird	Burson Cohn & Wolfe
Francis Thomas	Association of Manufacturers of Domestic Appliances
Gareth Simkins	ENDS Report
Guillermo Pérez Molina	EUK Consulting
Hannah Conway	Wildlife & Countryside Link
Hannah Evans	Fidra
Helen Middleton	Rolls-Royce
Ian Axford	LGC Group
Ian Callan	Innospec
Ian Howell	Unilever
John Broderick	Royal Society of Chemistry
John Reid	British Chemicals Association
Julie Schneider	CHEM Trust

Kirsty Eley	Chemical Industries Association
Kristina Flexman	Wood Plc
Lara Dickens	Chemservice UK
Lisa Hipgrave	International Fragrance Association UK
Lowenna Jones	University of Sheffield
Mandy Veillette	PETA Science Consortium International
Marlen Moreno	Rolls-Royce
Matteo Gianella-Borradori	Unilever
Mengjiao Wang	University of Exeter
Michelle Bloor	University of Glasgow
Mohamed Elkhalifa	British Plastics Federation
Nicholas Bennett	University of Nottingham
Nigel Haigh	Institute of European Environmental Policy
Nik Robinson	Nikam Ltd
Phil Humphries	PTJH Consulting Ltd
Philip Malpass	UK Cleaning Products Industry Association
Ray Parmenter	Chartered Institution of Wastes Management
Richard Woolley	Chemical Industries Association
Ricky Dunn	Risk & Policy Analysts Ltd
Roger Pullin	Chemical Industries Association
Sam Saunders	Cruelty Free International
Sean Kelly	Nanotechnology Industries Association Ltd
Simon Hall	BAE Systems
Steve George	REACH Law UK
Steve Whitehouse	Non-Ferrous Alliance
Tony Bingham	AGB Chemical Compliance
Zoe Avison	Green Alliance

Government Officials

Janet Sheridan	DAERA	Martin McVay	Welsh Gov
Anne Saunders	Scottish Gov	Ovnair Sepai	UKHSA
Patrick Royce	BEIS	Abi Williams	HSE
Alex Park	HSE	Dave Adams	HSE
Lucy Kershaw	HSE	Jill Wakefield	HSE
Laura Thain	EA	Tom Nickson	EA
Anchen Kehler	DEFRA	Chris Thorn	DEFRA
Carmen Jimenez-Antunez	DEFRA	Edward Hannifan	DEFRA
Georgia Heritage	DEFRA	Hannah Littler	DEFRA
Hermione Mackelworth	DEFRA	Jack Brown	DEFRA
Jackie Taylor	DEFRA	James Kearney	DEFRA
Jane Morrill	DEFRA	Kathryn Miles	DEFRA
Lewis Manuel	DEFRA	Lyndon Ashmore	DEFRA
Mags Bradley	DEFRA	Megan Thomsett	DEFRA
Melanie Foster	DEFRA	Michael Lockhart	DEFRA
Paige Robinson	DEFRA	Philip Douglas	DEFRA
Rebecca Want	DEFRA	Robert Jones	DEFRA
Ruth Coward	DEFRA	Ruth Michael	DEFRA
Sally Read	DEFRA	Simon Johnson	DEFRA
Wassim Choudhury	DEFRA	Will Stinson	DEFRA

Apologies

Adrian Simpson	British Retail Consortium
David Bott	Society of Chemical Industry
David Wright	UK Lubricants Association
Helen Lynn	Alliance for Cancer Prevention
Michael Cooper	Chemical Businesses Association
Mike Holland	Independent
Tim Burrows	Charles River

Annex G: Summary of discussion on the MacKay Carbon Calculator

Room 1: Surprised by the underplay of biomass neutralisation and pleased to see the demand on carbon capture and storage could be reduced and still achieve 100%. Could not work out when storage would be available at scale and could not find a way of biomass phasing as the tool didn't allow playing with parameter. BEIS responded that time was fixed in that version of the tool and the tool set linear ambitious levels.

Room 2: Looked at various levels of ambition but, mainly played with the levers and could only get to 98%. Electrification in transport sector, heat pumps for buildings, and shift to biomass in industry made a big difference. Greenhouse gas removal at ambition four had a big impact but, nothing in electricity and land use made too much of a difference. BEIS responded that going ambitious on hydrogen without reducing carbon would make the situation worse.

Room 3: Observed that lowering demand in production in goods was missing. BEIS responded that said fully imported goods were not UK emissions but, of the country who produced the goods. The tool was for UK territorial emissions and consumer emissions were roughly about 25% of UK emissions.

Room 4: Went through each higher-level sections based on ambition, focusing on CO_2 and different ways of producing hydrogen. BEIS explained how hydrogen could result in negative emissions, noting that most hydrogen was produced from natural gas without carbon capturing and 'green hydrogen' was produced by electrolysing water. Therefore, using biomass as the source of hydrogen production was the net zero method.

Room 6: Surprised by how little impact some levers had, and the biggest impact levers were CO_2 and biomass. Overarching theme was that it was difficult to get to net zero by doing just one thing, i.e., doing one thing could raise red flags in other areas. BEIS agreed and gave an example of aviation demand as a lever being only 3%. Stakeholders did not accept that consumers would reduce their use of aviation, however, unexpected events such as the Covid-19 pandemic did impact this and flying less far and less often was part of the solution.

Room 7: Noticed that setting ambitions higher often made them achieve less and surprised by how little effect solar energy had but, had a good conversation on hydrogen blending. BEIS explained that 20% hydrogen could be added into the gas grid, but whether 100% could be added was questionable, as there are hazards associated with hydrogen. They added that wind energy was superior to solar in the UK, as winds were higher in winter when demand for energy was higher.

Room 8: Surprised by the expected contribution on nuclear and noted that for electrifying heavy goods vehicles (HGVs), resources might not be better used elsewhere. The underlying assumption on farming was that there did not seem to be a massive move to plant based diets and the effects of that. BEIS explained that many things would need to change simultaneously to reach net zero, not just one at a time. They added that for heavy goods, the challenge was that huge batteries were needed for lorries which were too heavy, therefore, hydrogen was a more likely solution for bigger HGVs.