2023

ECETOC Annual Report 2023

ecetoc

We are the Centre for chemical safety assessment

ECETOC Annual Report 2023

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ABOUT ECETOC

ECETOC is a scientific association that accelerates the development of chemical assessment solutions to ensure a safe, sustainable, and healthy world.

OUR PURPOSE

ECETOC is the scientific centre for chemical safety assessment.

WHAT WE DO

We provide a collaborative space for top scientists from industry, academia and governments to develop and promote practical, trusted and sustainable solutions to scientific challenges which are valuable to industry, as well as to the regulatory community and society in general.

We shape scientific knowledge

ECETOC works with leading scientists from academia, governments and industry to answer crucial scientific questions about chemical safety and assessment.
We do this by organising workshops, expert meetings and task forces that transform research into practical applications to solve contemporary and future scientific challenges.

We expand scientific knowledge

ECETOC works with Cefic's Long-range Research Initiative (LRI) to develop targeted scientific research and other relevant initiatives.
We provide Cefic LRI with scientific advice and support to develop its research programme and coordinate and monitor its projects.

We communicate scientific knowledge

ECETOC provides scientific thought-leadership, creating a practical knowledge base that is shared freely on our website, in our publications and at our meetings and symposia. ECETOC's chemical safety assessment tools are also available on our website.

OUR VALUES

Scientific excellence

We engage top scientists from industry, academia and governments.

Science for the public good

We ensure all our scientific activities have a primary public purpose and benefit, in particular focusing on protecting human health and safeguarding the environment.

Collaboration

We provide a forum for scientists from industry, government, and academia to exchange ideas and work together to ensure appropriate and valuable scientific outcomes.

Independence

We provide the collaborative space, freedom from commercial pressure and long-term project stability needed to ensure independent scientific research and technical development.

Transparency

We openly address potential conflicts of interest (in publications, or internally) and make all our work and the scientific findings resulting from it freely available to the public.

Diversity

We are dedicated to building a diverse organisation and collaborative environment, with a shared commitment to scientific excellence.

OUR STRUCTURE

ECETOC is governed by a Board of Administration (senior executives from member companies), which is appointed by the General Assembly and responsible for ECETOC's overall policy and finance. The Board appoints the Secretary General, as well as members of the Scientific Committee which defines, manages and peer reviews the ECETOC work programme. The Board and the Scientific Committee are supported by the ECETOC secretariat, managed by the Secretary General.

OUR FINANCING

ECETOC is financed by its membership, which are the leading companies with interests in the manufacture and use of chemicals, biomaterials and pharmaceuticals.

MEMBER SHIP

By contributing to ECETOC's practical tools and multi-stakeholder recommendations you can help improve, innovate and expedite the chemical safety assessment process.

WHO CAN BECOME A MEMBER

Membership is open to companies engaged in manufacture, processing or use of chemicals or in applied research in the human health and environmental impact of chemicals (see **www.ecetoc.org/membership** for more details).

No membership fee is due for academics and regulators.

BENEFITS OF MEMBERSHIP

We create a collaborative environment that brings together the collective scientific expertise of academia, regulatory authorities and industry to contribute to regulatory safety assessments of chemicals.

We share scientific knowledge about current and future regulatory science challenges, as well as what's emerging, what's new, what's affecting industry sectors, regulatory authorities and science in general.

We actively help to **shape industry's future science** agenda.

We provide access to ECETOC expert meetings attended by industry, top academic and regulatory scientists. We train our members' young scientists and enhance their professional networks through participation in Task Forces, Workshops and Transformational Programmes.

We represent our members in EU and international organisations, such as ECHA and OECD. We develop tools to streamline evaluation, registration and management of safe chemistry.

ECETOC MEMBER COMPANIES

During 2023, the ECETOC Membership comprised the following 29 full Member Companies and 5 Associate Member Companies

FULL MEMBERS

ARKEMA · BASF We create chemistry · Bayer · CLARIANT

CORTEVA agriscience · DOW · DSM BRIGHT SCIENCE. BRIGHTER LIVING.

DUPONT · equinor · EVONIK INDUSTRIES · ExxonMobil

Givaudan · Henkel · Honeywell · HUNTSMAN Enriching lives through innovation

L'ORÉAL · Lubrizol · LYB LyondellBasell

MERCK · P&G · Roche · SC Johnson wax

Shell · SOLVAY · SUMITOMO CHEMICAL

syngenta · TotalEnergies · Unilever · WACKER

ASSOCIATE MEMBERS

Afton CHEMICAL · ALBEMARLE CORPORATION · Firmenich · NiPERA NICKEL HEALTH AND ENVIRONMENTAL SCIENCES · RIFCON

MESSAGE FROM THE CHAIR OF THE BOARD

Dr. **CHANTAL SMULDERS**

Our spot on the horizon is continuous improvement of chemical safety assessment, resulting in assessments that have better predictability and relevance, that can be reproduced, and in a faster way.

Dear members, dear Scientific Community,

It is tempting to dive straight into the impressive content that the ECETOC community has delivered in 2023, leading the development of tools and insights to progress chemical safety assessment. However, before doing this, I'd like to share the societal, scientific, and regulatory context in which we are currently operating.

'Chemical pollution' was included as one of the nine planetary boundaries, and this boundary has subsequently been renamed to 'novel entities'. While no quantitative boundary was defined for the novel entities boundary, it was argued that the anthropogenic introduction of novel entities to the environment is of concern at the global level when these entities exhibit persistence, mobility across scales with consequent widespread distribution and accumulation in organisms and the environment, and potential negative impacts on vital Earth System processes or subsystems. Environmental scientists have now submitted that the safe operating space of the planetary boundary of novel entities is exceeding since annual production and releases of novel entities with diverse risk potentials exceed societies' ability to conduct safety related assessments and monitoring *.

We are at a crossroads in how we are progressing chemical safety assessment in the next years. There is a clear case for progressing chemical safety assessments at pace and at high quality, and the regulatory landscape is trying to keep up with the scientific developments in this area. It is evident that with the traditional chemical safety assessment methods using animal testing, we will not be able to keep up with the pace of economic growth and the consequential chemical production. We simply must do better.

Doing the same we have always done is not good enough anymore. Our spot on the horizon is continuous improvement of chemical safety assessment, resulting in assessments that have better predictability and relevance, that can be reproduced, and in a faster way.

We may not be able to fully risk assess the chemical universe, but - in the words of a regulator I spoke with - 'We have to identify the 'bad guys' and risk manage those'.

In the regulatory context, I would like to highlight a few trendsetting events that make me hopeful for the future. In May 2023, the European Chemicals Agency hosted a workshop on New Approach Methodologies, where stakeholders shared their views on the transition of traditional chemical safety assessment to New Methods moving away from animals. One of the outcomes was that a roadmap was needed to facilitate this transition. In December 2023, the European Commission organized a workshop on a Roadmap towards phasing out animal testing for chemical safety assessments. What I took away from this workshop is that **stakeholders are aligned on the purpose of moving towards better chemical safety assessments and away from animal testing. This will require everybody to come together and use our collective insights, experience and expertise to make this happen and it is up to all of us to do this at pace.**

*Cited from Persson et al., Environ. Sci. Technol. 2022, 56, 1510-1521

Talking about pace, ECETOC has been progressing a tremendous amount of activities on chemical safety assessment in 2023. This report will provide an overview of all of these, and I would like to highlight a few that fall under the three Transformational Programmes we have in ECETOC.

Exposure is an essential element of risk assessment, and we are making strides in assessing exposures to chemicals. The Targeted Risk Assessment (TRA) Transformational Programme has delivered an updated TRA Worker Tool (v3.2) with improvements in place to reflect the performance/predictability analysis. In addition, the TRA Task Force – Environment branch is progressing insights in the assessment of human exposure indirectly via the environment. Consumer exposure is also addressed, and publication TR142 ("Approaching cross-sector aggregate substance exposure assessment for consumers") is the first step in the development of a common methodology for assessment of aggregate consumer exposure. The ECETOC workshop 'Elevating exposure science in chemical safety management – developing recommendations for stakeholders' in October 2023 was very successful, and the workshop report will set out clear priorities to be actioned in the next year.

The Human Health Transformational Programme is focusing on New Approach Methodologies, and published a manuscript specifically focused on opportunities to utilize NAMs to provide additional data and knowledge for low-tonnage chemicals registered under the REACH regulation. Two Task Forces have kicked off – one Task Force aiming to explore the opportunities for extended or 'smart' in vivo studies, i.e. in vivo studies that employ new OMICs technologies with the aim to eventually minimize the amount of animal testing. The other Task Force 'Omics Data Interpretation Framework for Regulatory Application' aims to support consistent approaches to both OMICs data analysis and interpretation.

ECETOC will kick-off a new Transformational Programme focused on new methodologies in environmental safety assessment. Activities on Persistency, Biodegradation, and Toxicity will be further progressed under this programme. The new Task Force on assessing risks to biodiversity from exposure to chemicals will be crucial in identification of assessing the state of the science and to progress key questions in this area.

ECETOC has been addressing very pragmatic chemical safety assessment issues, including strategies to overcome challenges in aquatic testing of particulate material, dose selection in developmental and reproductive toxicology studies, and assessment of the human health and environmental safety of polymers.

All the activities, whether virtual meetings, workshops, publications, or reports, could not have been delivered without the excellent work of the ECETOC science community and the ECETOC team in Brussels. I would like to thank all of you for your efforts and energy that you have put in these activities.

In 2023, the ECETOC Board composition changed as we said farewell to Dr. Melanie Bausen-Wiens and Dr. Steve Maund, who have changed roles in their companies. I would like to thank both for their valuable insights, expertise, and leadership they brought to the Board. The Board has welcomed Dr. Simone Kopping and Dr. Peter Campbell, with whom we have strengthened our organisation helping us to tackle the scientific challenges ahead of us.

Collaboration maintains the key to success. All stakeholders, from academia to industry, from research institute to regulator; we must work together. **As we are at a crossroads in how we are progressing chemical safety assessment in the next years, we don't have the time to take a wrong turn. We need every perspective in the room to make the transition in chemical safety assessment happen and to ensure we can turn the tide on the planetary boundary for novel entities.**

ECETOC BOARD OF ADMINISTRATION

The Board of Administration, composed of at least six member-company representatives, is empowered by the Annual General Meeting with the management and administration of ECETOC, and delegates these tasks on a daily basis to its Secretary General. Two Board Members are entitled to represent the Associate members. Board Members have a two-year mandate and are responsible for the overall policy and finance of the association.

The Board is also responsible for appointing the members of the Scientific Committee. Member companies may propose candidates for the Board. These candidates must have managerial duties within their company and possess scientific and technical experience.

Member companies may propose candidates for the Board. These candidates must have managerial duties within their company and possess scientific and technical experience.

RE-ELECTION OF BOARD MEMBERS AT THE 2023 ANNUAL GENERAL MEETING:

Patrick Masscheleyn (Procter & Gamble) and Arndt Wellmann (Bayer) were re-elected to the ECETOC Board.

ELECTION OF BOARD MEMBERS AT THE 2023 ANNUAL GENERAL MEETING:

Peter Campbell (Syngenta Crop Protection) and Simone Kopping (BASF) were elected to the ECETOC Board.

ECETOC BOARD MEMBERS DURING 2023

CHANTAL SMULDERS Shell International (Chair)
VOLKER SOBALLA Evonik Industries (Vice-Chair)
NICHOLAS BALL Dow Europe (Treasurer)
ROBERT BARTER ExxonMobil Biomedical Sciences
MELANIE BAUSEN BASF (until June 2023)
PETER CAMPBELL Syngenta Crop Protection (from June 2023)
SIMONE KOPPING BASF (since June 2023)
PATRICK MASSCHELEYN Procter & Gamble
STEVE MAUND Syngenta Crop Protection (until June 2023)
RESA RASOULPOUR Corteva Agriscience
ARNDT WELLMANN Bayer

REPORT FROM THE SECRETARY GENERAL

Dr. **BLANCA SERRANO RAMÓN**
Secretary General

Building on the accomplishments and challenges of the past years, ECETOC's journey through 2023 has been characterized by significant growth, both internally within our organisation and externally in our engagements and influence in the field of chemical safety assessment. This year has not only seen the continuation of our commitment to excellence and innovation but has also been marked by substantial developments in our strategic direction, membership, and leadership.

The year 2023 brought forth an expansion in our membership, a testament to the value seen in our work. We were delighted to welcome Nestlé and RifCom into our fold. The inclusion of these members enriches our diverse network with fresh insights and perspectives, fostering collaboration to address the complex challenges in chemical safety assessment.

Our strategic initiatives this year were focused on addressing current and emerging topics critical to the advancement of regulatory science. We delved into areas such as exposure analysis, the application of New Approach Methodologies (NAMs), long-term environmental fate, polymers, biodiversity and developmental neurotoxicity (DNT) among many others. Our progress in these topics reflects our commitment to leading the way in developing innovative and pragmatic approaches and solutions.

While work continued on many fronts, 2023 saw a few milestones that need special mention, from the release of a new (and more accurate) version of the TRA Worker Tool (v3.2), to the publication of a tiered approach for polymers standard information requirements, to the submission of the Staged Assessment Task Force to the EPAA designathon, to publishing the fourth and final publication in the T4 series on neurodevelopmental effect on the progeny of maternal thyroid hormone imbalance.

2023 also marked a pivotal moment in ECETOC's stewardship, with a significant transition within our Scientific Committee. We bid farewell to our long-standing Chair, Ben van Ravenzwaay, whose leadership and contributions have been instrumental in guiding the committee's impactful work. His dedication to ECETOC's mission has left an indelible mark on our organisation. In his stead, we welcomed Johannes Tolls as the new Chair of the Scientific Committee. Johannes brings a wealth of experience and a fresh perspective that promises to drive our scientific agenda forward with renewed energy and vision.

This year we also said goodbye to another pillar of ECETOC, Geneviève Gérits, the living memory of our association, who retired after more than two decades with us. We wish her all the best in this well-deserved new chapter of her life. On the other side of the coin, we welcome three new secretariat members that have further enriched our team: Lucy Wilmot, Sergio León Pérez, and Anne Vallès Meunier. Their diverse backgrounds and expertise add significant value to our organisation, enhancing our capacity to succeed in our mission. Their arrival signifies our internal growth and the strengthening of our core team, ensuring that we remain at the forefront of our field.

Underpinning all our efforts this year has been a deep commitment to promoting and disseminating our work. We released 9 publications (4 technical reports, 3 manuscripts in peer-reviewed journals and 1 workshop report), organised 5 workshops, held several presentations and poster sessions at international conferences (SETAC Europe, EuroTox, ISES Europe, the Latin American Regulatory Cooperation Forum…) and participated in European partnerships (EPAA) and projects (with a permanent seat in the advisory board of the PARC project). Our engagement in these forums allows us to share our insights and collaborate with a broader array of stakeholders, contributing to the advancement of regulatory science and the safe and sustainable use of chemicals.

As I reflect on the year, it is evident that our journey has been marked by both continuity in our mission and evolution in our strategies and team composition. The growth we are experiencing—both internally with the enrichment of our team and externally through our expanding membership and influence—acts as a guide towards the best approach to addressing the challenges and opportunities within chemical safety assessment.

Looking forward, we are filled with optimism and a sense of purpose. The contributions of our members, the leadership of our Scientific Committee, and the dedication of our staff are the cornerstones upon which we will continue to build our future efforts. We are looking at expanding our membership, our Secretariat Team, and our portfolio of activities. Together, we will forge ahead, driven by our shared commitment to science-based collaboration, innovation, and the pursuit of excellence.

As we embrace the possibilities that lie ahead, we remain strong in our dedication to making a lasting impact on the field of chemical safety assessment, for the betterment of society and the environment. Here's to a future of continued growth, collaboration, and achievement.

SCIENCE PROGRAMME

FOREWORD FROM THE SCIENTIFIC COMMITTEE CHAIR

Dr. **BENNARD VAN RAVENZWAAY**
Chair of the Scientific Committee

I will remember the year 2023 as one of great engagement and new perspectives. ECETOC received many good proposals and now is the time to focus on the most important. That means selection and, hopefully, making the right decisions. We have a great structure that allows for long-term activities (transformational programs -TP), targeted activities (task forces - TF), and assessing the importance of new topics and technologies that may have an impact on how safety research is done in the future (workshops - WS). Traditionally, TP and WS activities attract more attention from regulators and academia, while TFs are often more important for companies. Time is an essential component in all these activities. Particularly for TFs, it is essential that ECETOC receives proposals for scientific activities in time to provide an opinion or technical guidance on how a particular issue can be best tackled. Communication is the other essential factor. If companies are not aware of the time it takes to organize and run a TF, frustration over perceived slowness of ECETOC may occur. On the other hand, awareness of ongoing ECETOC activities and the possibility for each member company to make proposals is a communication component that ECETOC must drive. I am very happy that our focus on new approach methods (NAM) and new areas such as biodiversity is attracting new companies to join the ECETOC family. Increased membership is the only way to increase activities, in terms of financial possibilities, access to expertise, and diversity of skills and opinions.

It is impossible to list all the 2023 activities in this review, so I would like to focus on our TPs and some of the highlights from my personal perspective, but also to reflect on where our activities resulted in a change in how hazard identification and chemical risk assessment is done.

ECETOC's flagship programme, the targeted risk assessment TRA-TP, consists of a steering team and three branches of Task Forces (Workers, Consumers, and Environment). The workers branch published an analysis of the TRA Worker tool performance and predictability, and the updated TRA Worker tool was released in October 2023. The User Resources tools were updated to make them more accessible and user-friendly and were disseminated among users and stakeholders, including ECHA. The Environment branch reviewed the literature on assessment of humans exposed indirectly via the environment, focusing on the applicability domain and relevance of the current EUSES sub-models and collaborated with regulatory authorities on a manuscript on the application of the SimpleTreat model, which is an assessment tool for the fate of substances in wastewater treatment plants, incorporated into EUSES and Chesar. This TP had a significant impact on how we exposure assessment is done. We can be proud... but is it enough to continue to (just) improve the TRA? Apart from production volume, exposure data are still not considered when it comes to the shopping list of hazard identification studies - the basic argument being that exposure data are uncertain. I have the feeling that many companies are unwilling to invest in the development of robust exposure data because their use in the risk assessment process is limited and possibly even declining. A classical "catch-22" situation. One way to change this is to give more attention to exposure sciences, and this is exactly what was done in the WS on elevating exposure science in chemical safety management. This WS had approximately 100 attendants, partly face-to-face and partly online. In general, ECETOC WS are now structured in such a way that during the first day, a series of presentations on the state of the art of a particular technology or issue are held, which is open to all who are interested, while on the second day specific questions are dealt with in breakout sessions. Thus, online participation on day 1 is an effective means of communication while combined face-to-face and online participation of experts on day 2 has proven to be most effective.

ECETOC has completed its work on the environmental TP "Making environmental risk assessment more relevant." We have provided several technical reports and publications to demonstrate opportunities how this can be achieved. Will these science-based proposals result in a tangible change? It is difficult to tell at this time. We will however not sit still and kick-off a new Transformational Programme focused on new methodologies in environmental safety assessment in 2024.

The TP "Development of an integrated approach for chemical risk assessment" to advance the integration of NAMS into next-generation risk assessment approaches published a manuscript focused on opportunities to utilize NAMs to provide more information for low-tonnage chemicals registered under the REACH Regulation. Within the scope of this TP, a new TF evaluates the application of the staged assessment framework developed in the above TP incorporating in silico, in vitro, and targeted in vivo methods, for a more targeted and efficient way to provide data for chemical safety risk assessment. This TF is also active in an EPAA activity related to the use of NAM-based solutions to classification and labeling. Realizing that the transition from full in vivo to full in vitro studies will need a bridge to ensure that chemical risk assessment can be maintained at an adequate level during this phase, the smart in vivo studies TP explores opportunities to reduce the number and duration of in vivo studies by introducing new technologies such as 'omics in traditional short-term OECD testing guidelines. The impact of these activities on the entire risk assessment process is not yet clear. I am convinced that the combination of staged assessment, perhaps in the near future already combined with artificial intelligence, will allow us to be more efficient and to focus on those aspects of hazard identification that really matter. I also believe that the smart study concept is one that is likely to be picked up by regulatory authorities, in particular for low-tonnage chemicals. This may also help to gain more trust in the use of NAMs. Most likely these NAMs will include 'omics technologies. It is in this area where ECETOC has contributed successfully for more than 15 years to advance the application of 'omics technologies in hazard identification, which has resulted in the development of OECD standards for the use and reporting thereof. Completing this work is now the objective of a TF providing guidance on omics data interpretation.

Beyond the development of NAMs and smart studies, how can we contribute to making a change in how hazard testing and data interpretation are done? I would like to mention two TFs who are paving this way. The TF "Aquatic testing of particulate material " submitted their manuscript explaining the significant challenges in testing. They also provided various options to overcome these challenges. These changes to the current testing guidance are essential to be able to perform such studies in a scientifically meaningful way. Our proposals also indicate the importance of access to hands-on expertise in these fields. The T4 (thyroxin) TF has completed their work by publishing their fourth and last manuscript which puts forward a proposal for a Thyroid Function-Related Neurodevelopmental Toxicity Testing and an accompanying Assessment Scheme. We hope that this proposal will be considered by regulators as the current endocrine hazard identification and risk assessment paradigms do not work well for thyroid hormone-related adverse effects. Various means of communication were adopted to disseminate our T4-related work; this includes a dissemination event, poster and platform presentations at this year's SOT annual meeting and a satellite symposium at Eurotox 2024. Effective communication is essential to ensure that our work receives the attention it derives and is considered when changes are made to testing and assessment procedures.

Although it is probably common to end an overview of activities with a positive message, I need to bring to your attention something that affects me emotionally. I am happy and optimistic that in regulations new ideas receive more attention and new technologies are considered for implementation. There is, however, one area in the EU where seems to be a reversal to progress, and that is the high dose selection for animal testing. Over the years a rather small but very vocal group has been communicating that the current dose level setting is inadequate (i.e., not high enough) for classification and labelling purposes. Acknowledging the fact that industry must perform their studies to guidelines in which toxicity is requested at the high dose level, increasing dose levels to the absolute maximum will not make these studies more relevant; on the contrary, such studies will introduce artifacts that will not be helpful in assessing the relevant human hazard potential, not to mention ethical considerations in terms of animal welfare. It is for this reason, therefore, that ECETOC re-activated a TF which, in 2021, published guidance on dose selection in toxicity. The TF's new aim was to address these questions specifically for dose selection in developmental and reproductive toxicology studies. This work has now been completed and published. I can only hope that it is fully taken into account by regulatory agencies. For effective and rapid implementation of our considerations, I believe that we should work together with NGOs associated with animal welfare.

Finally, after serving as the chair of the SC for 10 years, I would like to finish my last annual report by addressing **a big thank you to all of the members of the SC, the ECETOC secretariat, and members of the board. It has been incredibly enriching and an amazing learning experience over these years. You all have helped me in many ways to understand the challenges and opportunities in all the science areas that we are dealing with. It has been fantastic to get to know so many experts, personalities, and cultures. Thank you so much!**

I hope that you were not displeased with my performance; at least I can say that I managed to finish all SC meetings within the scheduled time. I am very happy that we have a new chair and vice-chair, and I am convinced that the SC is in very good hands. I will not relax and sit back, as I will continue to work on the SC, and I am glad that I will be able to continue to work with all of you.

2023
AREAS OF WORK

LEGEND / ICON SET

TRA (TARGETED RISK ASSESSMENT) TOOL AND EXPOSURE ACTIVITIES

TRA TRANSFORMATION PROGRAMME

The **TRA Transformation Programme** remains very active, comprising the **TRA Steering Team** and three branches of the TRA Task Force (Workers, Consumers and Environment)

The **TRA Task Force** – Worker branch published its last deliverable on the analysis of the TRA Worker tool performance and predictability: **TR No. 141**. **The updated TRA Worker tool (v3.2) was released in October, with improvements in place to reflect the performance/predictability analysis.** The updated tool includes some increased conservatism for certain PROCs, and also a **new standalone version of the TRA Worker tool**. The TRA tool User Resources were also updated (FAQ and user guides) for all three tools, with the aim to make them more accessible and user-friendly. The updated tool and documents were disseminated widely amongst stakeholders, including ECHA and all users who had downloaded the tool in past years. ECHA plans to update Chesar accordingly in 2024. Feel free to check out this short **video teaser** for a quick overview of the updated tool.

The **TRA Task Force – Environment branch** has continued to develop a **literature review on assessment of humans exposed indirectly via the environment**, particularly focussing on the applicability domain and relevance of the current EUSES sub-models. The group also continued to collaborate with the National Institute for Public Health and the Environment in The Netherlands (RIVM) and Environment and Climate Change Canada (ECCC) on a **manuscript on application of the SimpleTreat model**, which is an assessment tool for the fate of substances in wastewater treatment plants, incorporated into EUSES and Chesar.

OUTREACH:

Blanca was invited to attend the **Latin America Regulatory Cooperation Forum** which took place in November in Chile. Focus was on development of a relevant and reasonable approach to chemical safety assessment. Countries currently have some type of regulation for PPP and implementation of a REACH-like regulation is under consideration, but alignment is needed. Participants included authorities from 10 – 11 South American countries. Blanca presented the EU chemical safety approach, focusing on the challenges and learnings from REACH & CLP. The presentation included an overview of the risk/exposure tools, including of course the TRA. Participants asked whether it would be possible to translate the TRA – so this is the main follow-up – and invited ECETOC to attend again next year.

The TRA Steering Team has continued to have bi-monthly calls with the **Chesar team at ECHA** to share updates and developments, including the work on the TRA Worker tool update.

The TRA Task Force – Worker branch has submitted an abstract to present their work on the updated TRA Worker tool at the 2024 ISES Conference in Berlin.

AGGREGATE CONSUMER EXPOSURE ASSESSMENT

The Task Force on **Mid-tier approach to aggregated exposure assessment** **published ECETOC Technical Report 142** '**Approaching cross-sector aggregate substance exposure assessment for consumers**' in **December 2023**.

This work was initiated in view of the increasing public awareness and regulatory interest in potential health risks arising from consumer aggregate exposure, i.e. exposure of a consumer to the same chemical via different routes (inhalation, ingestion, and skin contact) and/or from different sources (e.g. cosmetics, household products, food-related products).

The publication of TR 142 is the first step in the development of a common methodology for assessment of aggregate consumer exposure, which may become increasingly relevant in the coming years (e.g. relating to the European Commission's aim for 'one substance, one assessment' as set out in the 2020 Chemicals Strategy for Sustainability).

ECETOC WORKSHOP: ELEVATING EXPOSURE SCIENCE

ECETOC held a **workshop on** '**Elevating exposure science in chemical safety management – Developing recommendations for stakeholders**' **on 25-26 October 2023 in Alicante**, Spain. This activity originated from the ECETOC 2022 Scoping meeting.

There was good attendance from a wide range of stakeholders, with approximately 30 attending the full two days F2F and approximately 70 joining online for the Day 1 presentations. The workshop was focussed on human exposure assessment, but many outcomes may be equally relevant to environmental exposure assessment. Day 2 of the workshop comprised a series of breakout groups dedicated to identifying priority tangible actions for elevating exposure science in chemical safety assessment.

Presentations from the workshop are available **here**. A workshop write-up is in preparation, which will set out the prioritised actions identified. ECETOC will then, in liaison with other stakeholders, identify the best forums to advance these.

NAMs

Outreach: ECETOC continued to look for opportunities to further advance NAMs and their application in chemical safety assessment. To map the ongoing activities across sector organisations, share information and possibly create synergies, ECETOC hosted a NAMs activities mapping meeting in March, attended by representatives from 10 different associations.

This consolidated ECETOC's cooperation with the European Partnership for Alternative Approaches to Animal Testing (EPAA), which saw ECETOC contribute to EPAA's Stakeholders' Forum and Annual Conference and started work to participate in its Designathon scheduled to take place in early 2024.

Furthermore, ECETOC's Secretary General contributed to an article by the Animal-Free Safety Assessment (AFSA) Collaboration on **non animal testing in context of REACH**.

NAMS (HUMAN HEALTH) TRANSFORMATIONAL PROGRAMME

The Transformational Programme '**Development of an Integrated Approach for Chemicals Assessment**' has continued its activities to advance the integration of next generation risk assessment approaches, such as NAMs, into chemical hazard and risk assessment. The group **published a manuscript specifically focussed on opportunities to utilise NAMs to provide additional data and knowledge for low-tonnage chemicals registered under the REACH Regulation** (**Botham et al., 2023**). This **video teaser** provides more information.

Two new Task Forces falling under this Transformational Programme kicked off – more info below!

STAGED ASSESSMENT TASK FORCE

The **Staged assessment for low tonnage chemicals Task Force** kicked-off their work in January. The Task Force aims to evaluate the application of the staged assessment framework developed in the above Transformational Programme, incorporating in silico, in vitro and targeted in vivo methods, to increase the level of knowledge for substances in lower REACH tonnage bands.

The Task Force is at the data collation stage, but also dedicated the later part of the year to **participation in the European Partnership for Alternative Approaches to Animal Testing (EPAA) designation, on NAM-based solutions to classification and labelling**. The Task Force is scheduled to continue work after completion of the EPAA report and will take part in the follow-up EPAA workshop in early 2024.

SMART STUDIES TASK FORCE

The **Smart in vivo studies Task Force** also kicked-off their work in January. The Task Force aims to explore the opportunities for extended or 'smart' in vivo studies, i.e. in vivo studies that employ new OMICs technologies or different endpoints from conventional studies, with the overall aim to advance in vivo studies by minimizing the amount of animal tests performed and optimizing methodologies.

This will entail improved data gathering and eliminating redundant in vivo tests, overall providing a higher level of confidence to facilitate their application in chemical safety assessment. The Task Force has been organized into subgroups and is currently concluding the data collection stage.

OMICS DATA INTERPRETATION TASK FORCE

A Task Force entitled 'Omics Data Interpretation Framework for Regulatory Application Task Force', originating from the ECETOC Scoping meeting in 2022, kicked-off in September. The Task Force has the overall aim to support the use of OMICs data for next generation risk assessment, which requires consistent approaches to both data analysis and interpretation. Previous work by ECETOC led to the development of the OMICs data reporting[1] and data analysis frameworks, and this new work aims to focus more on the interpretation. The Task Force is currently in a scoping phase to identify the most appropriate niche.

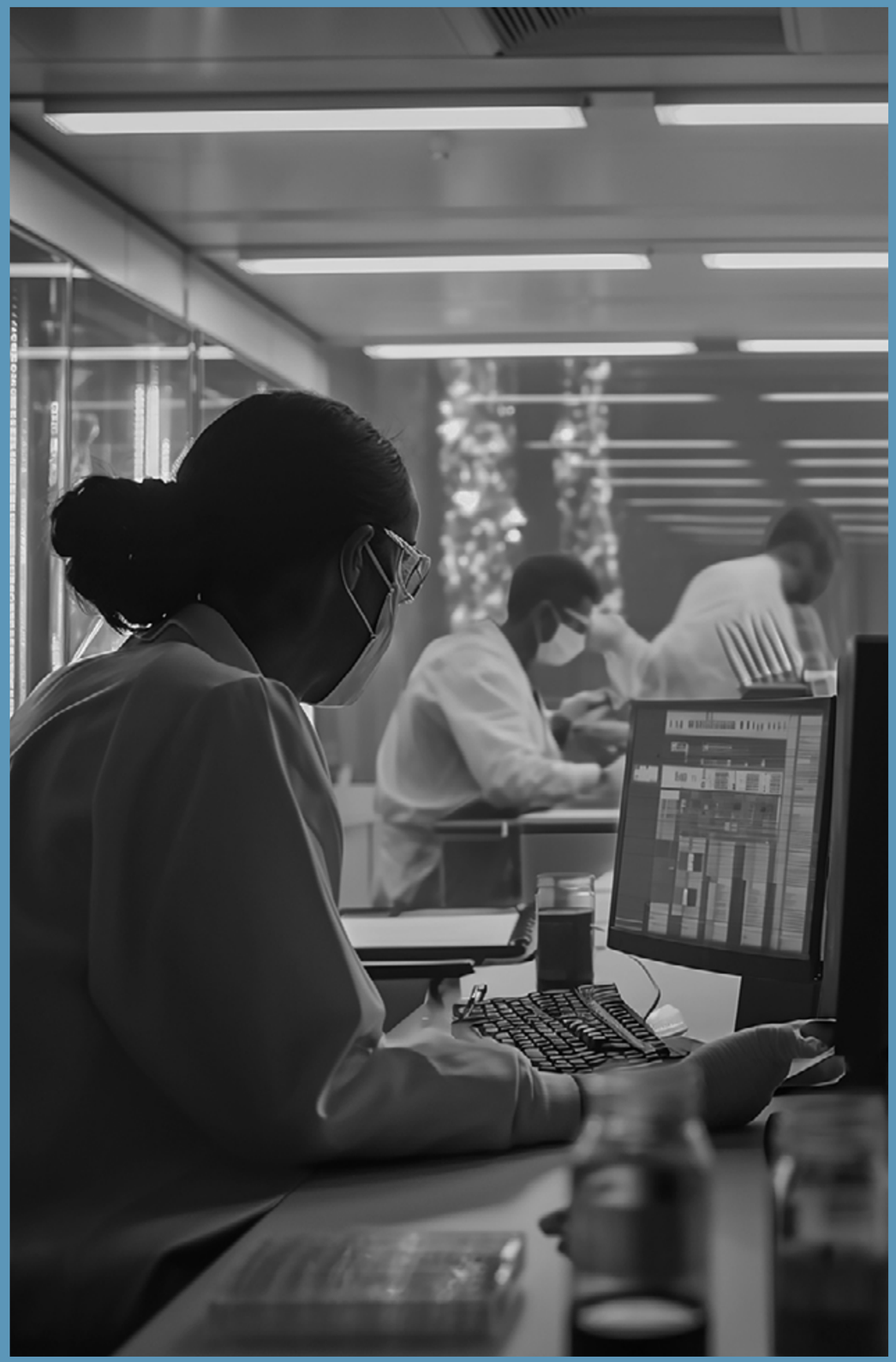
ENVIRONMENT TRANSFORMATION PROGRAMME ON IMPLEMENTATION OF NEW METHODOLOGIES

ECETOC will kick-off a **Transformational Programme focussed on new methodologies in environmental safety assessment** in 2024.

ECETOC WORKSHOP: UNDERSTANDING TIME IN BIOLOGY

ECETOC held a workshop in our offices entitled 'Chronos and Kairos – Understanding time in biology: Time for next generation risk assessment' on 7 – 8 November 2023. This workshop explored the need and approaches to study the influence of time and level of biological organisation (population, organism, tissues, cells etc.) in toxicity testing in next generation risk assessment based on NAMs.

Presentations from the workshop are available **here**. A workshop write-up is in preparation, with the long-term aim to aim to develop a strategy for including 'time - variables' in next-generation risk assessment.



[1]The Omics Data (Transcriptomics and Metabolomics) Reporting Frameworks were eventually harmonized into the **OECD Omics Reporting Framework (OORF)**.

TOXICOLOGY TESTING

DOSE SELECTION TASK FORCE

Since the publication in 2021 of the 'ECETOC guidance on dose selection' (TR No. 138) and associated publication (Sewell et al., 2022), the Dose selection in toxicity studies Task Force was **reactivated at the start of 2023 to focus on dose selection the developmental and reproductive toxicology (DART) studies**. The Task Force reviewed the state of the science, including the 2022 ECHA advice on dose-level selection for sub-acute and sub-chronic assays under REACH, and drafted a manuscript, which will be submitted early 2024.

OUTREACH:

The Task Force liaised with a group at the **Health and Environmental Sciences Institute (HESI)** in the US who is working on a manuscript covering a similar topic. The two manuscripts will be submitted to the same journal and potential be included in the same issue.

The Task Force is preparing abstracts for submission to several **scientific conferences in 2024**.

RESPIRATORY SENSITISERS TASK FORCE

Validated and accepted test methods/models to assess respiratory sensitisation are still lacking. Clinical evidence (case reports, clinical databases, worker exposure studies) is increasingly used to classify substances as respiratory sensitisers, irrespective of a proven immunological mechanism. The Task Force on Use of clinical data in identification of respiratory sensitisers.

This Task Force aims to evaluate the types of clinical methods and data available and the potential benefits and pitfalls of relying on such data for regulatory decision making. A manuscript on use and limitations of clinical data in the identification and classification of respiratory sensitisers is drafted and will be submitted Q1 2024 to the Scientific Committee for review.

ECHA PEG ON MUTAGENICITY GUIDANCE UPDATE

ECHA initiated work on updating the REACH mutagenicity guidance within Chapter R.7a: Endpoint specific guidance. The update aims to implement the latest changes to the REACH Annexes with respect to the mutagenicity information requirements (COMMISSION REGULATION (EU) 2022/477) as well as reflecting recent scientific and policy developments in ECHA's approach to mutagenicity assessment.

ECETOC participated in the dedicated PEG for this guidance update via nominated expert Naveed Honarvar (BASF) who liaised with an ECETOC shadow group to prepare comments for submission to the PEG.

ENDOCRINE DISRUPTION

T4 TASK FORCE

The T4 (thyroxine) Task Force started work in 2018 and has been investigating the potential link between imbalance in maternal thyroid hormones, particularly T4, and impaired neuronal development in offspring.

The Task Force this year **published their fourth and last manuscript in the series which puts forward a proposal for a Thyroid Function-Related Neurodevelopmental Toxicity Testing and Assessment Scheme (Thyroid-NDT-TAS)** (Melching-Kollmuss et al., 2023). The Thyroid-NDT-TAS reflects the current state-of-the-science and aims to make human safety assessments more accurate while at the same time minimising animal testing. It is also designed to comply with current EU legislation on the identification of endocrine disrupting properties of substances. The Thyroid-NDT-TAS assesses whether: (1) a substance causes thyroid hormone imbalance during pregnancy or lactation; 2) this leads to the neurodevelopmental effects in the progeny; and (3) the two are linked by a common endocrine mode-of-action (in alignment with the EU endocrine disruption criteria). The Task Force recommends that registrants and regulators apply the Thyroid-NDT-TAS to future regulatory assessments.

OUTREACH:

Task Force member Sue Marty (Dow) presented a poster and platform presentation at the 2023 SOT Annual Meeting (Tennessee).

The Task Force Chair, Stephanie Melching-Kollmuss (BASF), presented the key findings and insights from the Task Force work at an ECETOC hybrid evening dissemination event in Brussels on 27 November, which was followed by an informal networking reception for in-person participants.

A Satellite Symposium on Testing, assessment, and classification of thyroid hormone disruptors is being organised at the Eurotox Congress 2024 (Copenhagen) to further disseminate the work.

SUBSTANCES THAT ACTIVATE VARIOUS LIVER RECEPTORS AS ENDOCRINE DISRUPTORS

The Task force on Substances that activate various liver receptors as EDs continued its work in 2023. Its work is focussed hepatic nuclear receptor activation inducing liver enzymes that accelerate the metabolism of xenobiotics potentially also affecting the metabolism of hormones (sex steroid hormones in focus).

At the beginning of the year, a data filtering strategy was proposed to help identify relevant compounds. Public databases were screened for MIE/interaction with steroid receptors/enzymes. Literature and company data was examined for relevant compounds with endocrine effects such as reproductive organ tumours, hormone changes or liver effects.

After a successful F2F Task Force meeting in November initiated the draft of a manuscript for submission to a peer reviewed journal.

POPULATION RELEVANCE FOR NON-TARGET ORGANISMS (NTOS)

The Expert Group Population relevance for NTOs per EU Endocrine Disruption Criteria is close to finalising their manuscript on guiding principles to establish population relevance of endocrine-mediated adverse effects, and will submit in Q1 2024. Such guidance is to-date missing in the EFSA/ECHA guidance on identification of endocrine disruptors.

OUTREACH:

A platform presentation abstract was submitted for SETAC Europe Annual meeting 2024 (Seville) and other dissemination options are being considered.

ECHA ENDOCRINE DISRUPTOR (ED) EXPERT GROUP

As an ECHA Accredited Stakeholder Organisation, ECETOC continues to participate in the **ECHA ED Expert Group** via nominated expert Nina Hallmark (Bayer), who provides regular updates to the Scientific Committee on the discussions therein, especially those of particular relevance to the ECETOC activities.

ECHA PEG FOR NEW ED HAZARD CLASSES UNDER CLP

The European Commission **Delegated Regulation 2023/707** amends the CLP Regulation by setting new CLP hazard classes and criteria for ED and PBT/PMT. **ECHA is preparing an update of the Guidance on the Application of the CLP criteria to include guidance on the new hazard classes, and consulted during 2023 with a dedicated Partner Expert Group (PEG) on the new ED hazard classes.** ECETOC participated to this PEG via nominated experts James Wheeler (Corteva) and Helen Tinwell (Bayer), who liaised with an ECETOC shadow group to prepare comments for submission to the PEG.

PARTICULATE MATERIAL

AQUATIC TESTING OF PARTICULATE MATERIAL

The Expert Group **Strategies to overcome challenges in aquatic testing of particulate material** submitted their manuscript setting out current status and challenges in particulate material aquatic testing approaches and putting forward options to overcome these challenges. The Expert Group is currently working on the journal review comments for resubmission early 2024.

INHALATION TOXICOLOGICAL PROPERTIES OF LOW SOLUBLE PARTICLES

The Task Force **Inhalation toxicological properties of low soluble particles and their relevance for C&L** started working on a manuscript that discusses the toxicological impact of low-soluble particles focusing on the regulatory challenges. The goal of the TF is to develop new scientific frameworks for assessing the safety of these particles, aiming at reducing the reliance on animal studies and aligning regulatory practices more closely with human health relevance.

PBT

DEGRADATION SIMULATION STUDIES

A new Task Force, originating from the ECETOC Scoping meeting in 2022, on **Building knowledge from available degradation simulation studies** kicked off in October. The Task Force aims to collate information from available degradation simulation studies and analyse to identify the most influential factors driving results, highlighting potential limitations in current test set-up and data interpretation and making recommendations to resolve these challenges. They also aim to develop a read-across / grouping strategy for persistence assessment.

The Task Force is currently at the data collation stage. **If you have any surface water simulation degradation studies that you can share for the purpose of this work** (confidentiality will be carefully managed), please contact Lucy Wilmot (**lucy.wilmot@ecetoc.org**).

OUTREACH:

A platform presentation abstract was submitted for **SETAC Europe Annual meeting 2024 (Seville)**.

ECHA PBT EXPERT GROUP

As an ECHA Accredited Stakeholder Organisation, ECETOC continues to participate in the **ECHA PBT Expert Group** via nominated expert Sylvia Jacobi (consultant for Albemarle), who provides regular updates to the Scientific Committee on the discussions therein, especially those of particular relevance to the ECETOC activities.

ECHA PEG FOR NEW PBT/PMT CLP CRITERIA

The European Commission **Delegated Regulation 2023/707** amends the CLP Regulation by setting new CLP hazard classes and criteria for ED and PBT/PMT. ECHA is preparing an update of the Guidance on the Application of the CLP criteria to include guidance on the new hazard classes, and consulted during 2023 with a dedicated Partner Expert Group (PEG) on the new PBT/PMT hazard classes. ECETOC participated to this PEG via nominated expert Sylvia Jacobi (consultant for Albemarle), who liaised with an ECETOC shadow group to prepare comments for submission to the PEG.

ECHA PEG ON PBT GUIDANCE UPDATE

ECHA continued work during 2023 on updating the REACH PBT/vPvB assessment guidance (**Chapter R.11: PBT/vPvB assessment**, **Chapter R.7b: Endpoint specific guidance** and **Chapter R.7c: Endpoint specific guidance**). The update aims to implement recent scientific developments in the field to reflect ECHA's current approach to PBT/vPvB assessment as well as implementing revised information requirements and adaptations addressed in recent changes to the REACH Annexes (**COMMISSION REGULATION (EU) 2022/477**).

ECETOC participated in the dedicated PEG for this guidance update via nominated expert Sylvia Jacobi (consulting for Albemarle), who liaised with an ECETOC shadow group to prepare comments for submission to the PEG.

BIODIVERSITY

The new Task Force on **Assessing risks to biodiversity from exposure to chemicals** is an exciting new activity for ECETOC, originating from the ECETOC Scoping meeting in 2022. The Task Force aims to make an overview of the EU strategic initiatives/projects and research activities to ascertain the state of the science, and then develop some key questions to be discussed in a follow-up 2-day multistakeholder workshop.

Outreach: Three platform presentation abstracts were submitted for **SETAC Europe Annual meeting 2024 (Seville)**.

POLYMERS

Manuscript on Polymers SIR Ott et al., 2023 Published

During 2022, as part of its work on contributing to the **CARACAL sub-group on Polymers (CASG-Polymers) the** **Assessing the human health and environmental safety of polymers** Task

Force developed a proposal for a three-tiered approach for standard information requirements (SIR) for polymers requiring registration under REACH. **During 2023, a manuscript setting out the 'Three-tiered approach for SIR for polymers requiring registration under REACH' was finalised and published in Regulatory Toxicology and Pharmacology** (Otte and Hollnagel, 2023). The three-tiered approach aims to reduce animal testing, make best use of the current scientific evidence, and reduce uncertainty (compared to an untargeted tonnage-based approach). Tier 1 is based on in silico and in vitro methods (with the exception of non-vertebrate short-term aquatic toxicity testing (algae and invertebrates)) and will likely be sufficient for the safety assessment of many polymers. Targeted vertebrate animal studies are considered at Tiers 2 and 3 as per need. If you are interested to know more, **view this short taster video**.

Outreach: Task Force co-Chair Jens Otte (BASF) presented a poster of the three-tiered approach for polymer SIR at **SETAC Europe Annual meeting 2023 (Dublin)** and submitted an abstract for a platform presentation at **SETAC Europe Annual meeting 2024 (Seville)**. Task Force member Nathalie Vallotton (Dow) additionally submitted a platform presentation abstract on polymer risk assessment. Task Force co-Chair and Steward Heli Hollnagel (Dow) presented the Task Force work on polymer risk assessment at the **Fresenius online conference 'Polymers – Regulatory Management and Risk Assessment'** in November.

OTHER COLLABORATIONS

PARTICIPATION IN COMMITTEES, PROJECTS AND PARTNERSHIPS:

In addition to the outreach activities mentioned under the above activities, ECETOC has also participated in the following:

International Advisory Board for the **Partnership for the Assessment of Risks from Chemicals (PARC)**
SETAC Dublin Scientific Committee
Organising Committee for **EPAA Partners forum**
Persistent Organic Pollutants Review Committee (POPRC), as Observer
Competent Authorities for REACH and CLP (CARACAL) meetings
ECHA RAC
ECHA Biocidal Products Committee, as Stakeholder Observer.
In 2023 ECETOC became a member of **SETAC** and Eurotox.

ACTIVITIES AS SCIENCE BROKER:

In 2023, ECETOC continued managing Cefic-LRI projects, running the Cefic-LRI Microplastics research programme, and organised the **second ICCA MARII workshop** on 12-14 June in Seattle, WA.

PARTICIPATION IN WORKSHOPS AND CONFERENCES:

ECETOC Secretariat staff participated in the following events during the year:
SETAC Dublin (30 April - 4 May; Dublin)
EPAA Partners forum (13 – 14 November; Brussels) Miriam Leon Paumen (ExxonMobil) presented ECETOC NAM activity
EC 4th Stakeholder workshop on "Safe and sustainable by design" (6 – 7 December; Brussels)
EPAA NAMs User Forum (7-8 December 2023; Helsinki – attended online)
Workshop on the Commission roadmap towards phasing out animal testing for chemical safety assessments (11 - 12 December; Brussels)

As part of our continuing drive for efficiency and environmental care, all ECETOC publications are now distributed exclusively in electronic format. All reports, including articles published in peer-review scientific journals, can be freely downloaded from

ecetoc.org/publications

AWARDS

Environmental science related awards

Each year, ECETOC sponsors an award honouring a young scientist for the best poster presentations at the SETAC Europe Annual Meeting.

Summer Selinger from the University of Saskatchewan won the title of Young Scientist Awards (YSA) Best Platform Presentation for her platform talk "Acute Cardiometabolic Responses of Juvenile Salmonids Exposed to 6PPD-Quinone," presented at the SETAC Europe 33rd Annual Meeting in Dublin, Ireland.

Human health science related awards

The early career award for toxicological research into mechanisms and risk assessment is supported by ECETOC and is presented to young scientists at the EUROTOX Annual Meetings. In 2014, the award was re-named in memory of the late Dr. Christa Hennes, former ECETOC Human Health Sciences Manager, who was instrumental in its organisation. The winner receives a monetary prize and a free invitation to the following year's Eurotox meeting.

In 2023, the ECETOC Christa Hennes Early Career Award (ECA) was awarded to Martina Iulini, Università degli Studi di Milano, for her **In vitro study of the effect of PFAS on the antibody production**.

At the same event, Tamara Danilyuk of Leiden University received a Highly Commended Recognition for her work on **Human-induced pluripotent stem cell reporters for high-content screening of stress response activation identifying target organ-specific toxicities**.

TOOLS

Ecetoc launched and manages 3 practical tools to help practitioners:

NanoApp

Helps establish and justify sets of nanoforms and identify poorly soluble – low toxicity (PSLT) nanoforms. Launched in 2020, in 2023 it counted over 180 active users.

HeatDB

Is a database of tools and data for the assessment of human exposure. Updated on a yearly basis, in 2023 it featured 308 data sources and 66 tools.

TRA Targeted Risk Assessment

Calculates the risk of exposure from chemicals for workers, consumers and the environment. It has been identified by the European Commission's Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as a preferred approach for evaluating consumer and worker health risks (ECHA, 2010 a,b) – see above sections for ongoing work and updates.

TO CEFIC LONG-RANGE RESEARCH INITIATIVES

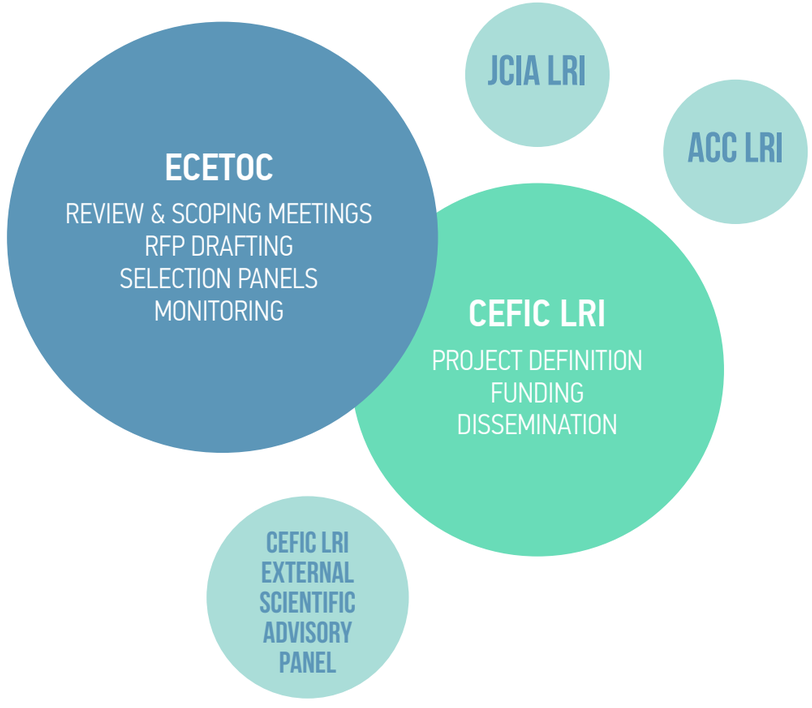
Since 1996, the Long-range Research Initiative (LRI) Programme of Cefic, the European Chemical Industry Council, has been providing proactive scientific data on which the entire industry and regulatory bodies can draw to address societal concerns on a reliable basis.

As a fundamental basis for a sustainable chemical industry and a complement to Responsible Care, LRI presents a Research Programme that is forward-looking and ambitious, but also realistic and coherent. LRI invests in long-term research and delivers transparent, quality-assured scientific data, open to the broad public.

ECETOC provides scientific support to the Cefic LRI as follows:

1. Organisation of joint ECETOC/Cefic LRI biennial scoping meetings to scope topics for further consideration as new projects by the Cefic LRI Issue Team (IT);
2. Drafting of 'requests for proposals' (RfPs) for new projects prioritised by the Cefic LRI IT;
3. Establishment and coordination of selection panels to review the research proposals submitted in response to published RfPs and make recommendations to the Cefic LRI IT concerning the funding of the proposals;
4. Establishment of monitoring teams to act as a discussion partner with the research teams and support Cefic LRI in the monitoring of project progress and
5. Administrative support and management of ongoing projects

Information on the Cefic LRI projects active or initiated during 2023 is set out in the following pages.



HUMAN HEALTH AND EXPOSURE PROJECTS ACTIVE OR INITIATED IN 2023

4 projects were completed during 2023 (marked below with ✓).

✓ **AIMT11**
Expansion of a regulatory accepted in vitro testing battery for developmental neurotoxicity evaluation. Principal investigator: Dr Ellen Fritsche, IUF Leibniz Research Institute, Dusseldorf, DE

✓ **B22**
Tiered Methods for Quantifying Exposure to Complex Substances ("TMEx-Complex"). Principal investigator: Prof. J. Mark Parnis, Trent University, CA

C5
XOMETOX - Evaluating multi-omics integration for assessing rodent thyroid toxicity. Principal investigator: Dr. Jorg Hackermuller, Helmholtz Centre for Environmental Research (UFZ), DE

C8
MetAbolomics ring-Trial for CHemical grouplNG (MATCHING). Principal investigator: Prof. Mark Viant, University of Birmingham, UK

✓ **C9**
Mining the developmental toxicity biomarker genome in the zebrafish embryo test. Principal investigator: Dr Sylvia Escher, Institute ITEM, Hannover, DE

C10
A tiered strategy of modelled doses, analogy concepts, and testing to approach the human hazard of microplastic particles via inhalation pathway (Stage 1). Principal investigator Dr Tanja Hansen, Fraunhofer ITEM, DE

ENVIRONMENTAL PROJECTS ACTIVE IN 2023

1 ✓

✓ **ECO 49**

ECO 54

ECO 55:

ECO56

ECO57

ECO58

ECO59

ECO60

ECO61

MEMBERS OF THE SCIENTIFIC COMMITTEE

The Scientific Committee is responsible for the definition, management and peer-review of the ECETOC work programme. Appointed by the Board, the members are selected on the basis of their scientific expertise.

During 2023, the Scientific Committee consisted of the following members:

BEN VAN RAVENZWAAY	Wageningen University & Research, Chair
JOHANNES TOLLS	Henkel (Vice-Chair)
JAN URBANUS	Shell (Vice-Chair)
PAOLO BOFFETTA*	Università di Bologna
PHIL BOTHAM	Syngenta
ALISTAIR BOXALL*	University of York
DOROTHEE FUNK-WEYER	BASF
TIMOTHY GANT*	Imperial College London
HELMUT GREIM*	Technical University Munich
ANDREAS HÄNER	F. Hoffmann-La Roche
DANIELA HOLLAND	ExxonMobil (from Q2 2023)
HELI HOLLNAGEL	Dow
PHILIPPE LEMAIRE	TotalEnergies
MIRIAM LEON PAUMEN	ExxonMobil (until Q1 2023)
LORRAINE MALTBY*	University of Sheffield
MARK PEMBERTON*	Systox Limited
CARLOS RODRIGUEZ	Procter & Gamble
DAVID ROUQUIÉ	Bayer CropScience
GORDON SANDERS	Givaudan International
CLAIRE TERRY	Corteva AgriScience
KEES VAN LEEUWEN*	Utrecht University
CARL WESTMORELAND	Unilever

**external experts*

MEMBERS OF THE SECRETARIAT

The ECETOC Secretariat is responsible for co-ordinating and managing the scientific work programme. The team supports the scientists working on the ECETOC programme in meeting the objectives set by the Scientific Committee.

BLANCA SERRANO RAMÓN — Secretary General
ANDREEA CUCIUREANU — Human Health Sciences Manager (until April 2023)
GENEVIÈVE GÉRITS — Office Manager (until April 2023)
SERGIO LEÓN PÉREZ — Junior Science Manager (as of April 2023)
ANDREA SALVADORI — External Relations Manager
FRANCESCA UGUCCIONI — Administrative Assistant
ANNE VALLÈS-MEUNIER — Head of Administration (as of February 2023)
LUCY WILMOT — Science Manager

FINANCE

ACTUAL INCOME IN 2023 IN K€

Subscription	1.050
Bank Interest	0
Investment income	9
Project related income	280
Unused budget allocation	0
Total	**1.339**

ACTUAL EXPENDITURE IN 2023 IN K€

Salaries and Associated Costs	684
Office Running Expenses	176
Travel Expenses	19
Workshops/task forces/meetings/contractors	308
Professional Services	31
Bank Charges	3
Capital expenditure	10
Publications/communication/website	22
Miscellaneous & contingency	2
Sponsorhips and awards	8
Total	**1.263**

BALANCE SHEET AND RESERVES 2023 IN K€

Total Income	1.339
Total Expenditure	1.263
Operating Margin	75
Opening Reserve	1.571
Closing Reserve	1.646

ecetoc

We are the Centre for chemical safety assessment

THANK YOU FOR READING!

Since 1978 ECETOC has provided a collaborative space for top scientists from industry, academia and governments to develop and promote practical, trusted and sustainable solutions to scientific challenges which are valuable to industry, as well as to the regulatory community and society in general. Learn more at ecetoc.org.

Learn more at **ecetoc.org.**

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ECETOC AISBL

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