

**ENVIRONMENT DIRECTORATE
CHEMICALS AND BIOTECHNOLOGY COMMITTEE**

**2027-2030 Environment, Health and Safety Programme of the OECD Chemicals and
Biotechnology Committee**

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2027-2030 Environment Health and Safety Programme of the OECD Chemicals and Biotechnology Committee

1. The present document describes the work to be done as part of the 2027-2030 Environment, Health and Safety Programme. It is divided into four focus areas (or pillars):
 - the evolution of risk assessment methods and data, including the transition towards New Approach Methods;
 - regulatory and non-regulatory risk management approaches;
 - data access, exchange and dissemination;
 - outreach and capacity building.
2. The Chemicals and Biotechnology Committee approved this document and agreed to declassify it on 27 March 2026.

Pillar 1: The evolution of risk assessment methods and data, including the transition towards New Approach Methods

Objectives

3. The objectives of this pillar are to develop tools to transition towards risk assessments methods that use the best available science, are more relevant for humans and wildlife, less resource intensive, rely less on the use of animals and address regulatory needs while maintaining quality assurance of the generated data.

Type of activities

The tools to be developed under this pillar will be used for chemical assessment [both for human health and the environment] and include, among others: Test Guidelines (including those based on New Approach Methods or NAMs), computational tools for predicting the properties and bioactivities of chemicals, approaches for extrapolating between NAMs and traditional *in vivo* tests, guidance documents on exposure assessment and on extrapolating to internal dose, case studies on the practical application of these methods, and guidance on the application and interpretation of NAMs in a regulatory context. The pillar would also include continuing work to ensure quality assurance of results from non-clinical safety studies as methods evolve and address emerging issues in chemical safety evaluation.

4. During this evolution, it is important to build confidence in new approaches and models and to continue to harness the concept of Mutual Acceptance of Data between countries to continue to ensure quality data for regulatory decision-making and efficiencies that the framework enables.

Furthermore, the work under this pillar would also aim to address issues related to risk assessment of specific substances such as advanced materials, pesticides, biocides and the products of modern biotechnology (e.g., the risks associated with novel foods or feeds such as insects or cultivated meat).

Focus of the work in 2027-2030

Standardisation and quality assurance of data

5. The work on the development of **Test Guidelines** would be one of the core activities under this pillar. The Programme will continue to deliver harmonised methods and approaches that address existing or anticipated regulatory needs, publish supporting documents and develop guidance for their application. The Programme will increasingly cover methods addressing complex endpoints and methods that may not be used standalone but rather in combination with other information sources. Among the future challenges to be addressed are:

- communicate/promote the self-assessment of the readiness of methods for validation and Test Guideline development; this activity will be targeted towards the developers of methods (e.g., from academia or innovative companies) to draw attention to key elements to fulfil before considering a method ready for validation and standardisation;
- encourage and promote initiatives to streamline the validation process (through workshops with regulators and workshops with stakeholders involved in validation activities) and the finalisation of the revision of *Guidance Document 34 on the Validation and International Acceptance of New or Updated Test Methods for Hazard Assessment* [ENV/JM/MONO(2005)14];
- further evolve the concept of performance standards to be technology-independent;
- develop guidance for using batteries of assays;
- develop guidance on the use of computational tools as part of Test Guidelines.

6. Furthermore, work on evaluating the applicability of emerging science and technologies for regulatory use will continue.

7. Along with Test Guidelines, **Good Laboratory Practices** (GLP) ensure the quality of non-clinical safety data for regulatory decision-making and underpins the OECD system of Mutual Acceptance of Data (MAD).

8. As technologies evolve in test facilities and new test methods are put into practice, the application and monitoring of GLP will need to be maintained and, if necessary, adapted or new guidance developed. This will ensure the continued alignment to the Principles of GLP.

9. One of the mechanisms for ensuring confidence in data generated under GLP is a peer review mechanism at the OECD of the compliance monitoring programmes of adherents to MAD. The On-Site Evaluations (OSEs) have been undertaken in 10-year cycles with the current cycle finishing in 2027. The next cycle of OSEs will begin in 2028 for an additional 10-year cycle.

10. Also to support alignment in the application of GLP, GLP Training Courses for inspections will continue to be organised every two years hosted by an adherent country.

11. Work will continue to expand the reach of MAD by assisting Partner countries in adhering to the system. This will be especially relevant as non-clinical safety testing is increasing in non-adherent countries and thus creating new challenges for regulatory authorities in countries that are receiving these studies.

Hazard and exposure assessment of chemicals, nanomaterials and advanced materials

12. In line with the recent findings and developments regarding toxicokinetics and bioassays, methodologies for **exposure assessment** work will continue on emerging industrial activities and their related emissions scenarios, exposure model development, exposure to vulnerable populations (e.g., children), and exposure assessment using emerging technologies (e.g., big data applications, biomarkers). Work on assessing exposure to chemicals will also consider emerging approaches such as Next Generation Risk Assessments that include new methods to impute ratios between predicted exposures and bioactivity.

13. Work in the areas of **hazard assessment** will focus on the development of best approaches and practices for integrating information to come to a regulatory decision, including NAMs used in specific regulatory contexts, and will include considerations for estimating internal exposures (e.g., at target organs). Furthermore, these projects will offer opportunities to discuss aspects of integrated approaches to testing and assessment (IATA) that can be harmonised, both for human health and environmental endpoints. IATAs will be reconsidered as chemically agnostic workflows that can be used to address endpoints of interest and will include a clear description of the context of use, transparent documentation of how data were analysed, criteria for decision making, transparent descriptions of the strengths and limitations of the approach, and data or metrics used to evaluate performance. While the results of projects (e.g., IATA case studies) will usually be outside of the scope of Mutual Acceptance of Data, consideration of steps needed to fix aspects of IATAs to become Defined Approaches suitable for inclusion in Test Guidelines will be explored. For IATAs and Defined Approaches that are not covered by MAD, the aim is to achieve a high level of confidence allowing for a wide use among countries of the results for regulatory purposes.

14. The OECD will continue to play a critical role in harmonising the review, documentation, and application of NAMs and their results for global chemical assessments and determining the confidence needed, in a fit-for-purpose manner, for regulatory application of such approaches. This may begin with evaluating the level of uncertainty of the NAM and determining how it can be used to inform chemical assessments, including risk management. Standardisation of documentation and reporting of additional approaches and technologies (e.g. omics, physiologically-based kinetic models, QSARs, complex in vitro systems) will contribute to an increased level of confidence in using the methods.

15. Recent advances in developing criteria for assessing the suitability of QSAR models and predictions can be used to inform assessment frameworks for regulatory application of computational methods. Additional considerations and guidance are needed for regulators to include results of computational models in chemical risk assessment, and the OECD will help formulate topics where input is needed and help coordinate interactions with appropriate technical experts.

16. Chemical pollution is a recognised contributor to the decrease in global biodiversity, although the extent to which this plays a role and interacts with other drivers on biodiversity loss (e.g. habitat loss, climate change) is poorly understood. OECD work on **assessing the risk of chemicals on the environment** will consider the possibility of leveraging existing tools and databases to predict the effects of chemicals on a broad range of wildlife species and an approach for expanding risk assessments and aiming to protect species biodiversity.

17. For both hazard assessment and exposure assessment, the opportunities of using Artificial Intelligence will be investigated.

18. The OECD will continue to provide feedback on the state of the science on topics related to potential new hazard classes being considered by the UN Subcommittee on the Globally Harmonised System for Classification and Labelling (GHS). Using the work coordinated by the OECD in the last biennium, the OECD will review and provide input on additional topics related to endocrine disruptors, persistent and mobile substances providing resources to support such work are available.

19. Work will continue to align the safety assessment of nanomaterials and advanced materials with those of traditional chemicals, with a particular focus on the development and/or adaptation of Test Guidelines and guidance documents. In parallel, efforts will advance to develop tools that enable the prediction of exposure of nanomaterials and advanced materials to humans and the environment.

20. For advanced materials, work will also continue to develop a strategic approach to identify emerging needs for assessment, and to formulate recommendations and actions necessary to address their safety and sustainability throughout their lifecycle.

Risk assessment of pesticides and biocides

21. There is increasing interest in incorporating the principles of precision agriculture into the growing of crops to improve sustainability. The OECD Pesticides Programme has several initiatives that support methods to reduce risks associated with chemical pesticides to human health and the environment and support new technologies in the design and application of pesticides. For example, harmonised terminology for digital labels needs to be developed to facilitate development of apps for farmers to increase compliance with labelling requirements and improve safety for operators

22. OECD work on pesticides designed using Novel Technologies addresses the interface between emerging science and regulation. Recent work to provide guidance on considerations for risk assessment of externally applied double-stranded RNA-based pesticides addresses a number of considerations unique to RNA-based pesticides including, the need to have formulations that are environmentally stable and taken up by the target organism while still limiting persistence and non-target uptake. OECD will continue to be a forum for considerations of the risks from these technologically advanced pesticides may be addressed.

23. Biological pesticides (e.g., bacteria, algae, protozoa, viruses, fungi, invertebrates, plant extracts, etc.) are expected to be less toxic than chemical pesticides, and although they are regulated in a similar way, their safety evaluation may be different. For example, microorganisms can be used effectively as plant protection products, but as living organisms, they replicate and produce their own chemicals and can be difficult to evaluate using the same methods as those used on chemical pesticides. The OECD work on biopesticides will continue to improve tests methods used to assess biopesticide hazard, promote globally harmonised approaches, and help to streamline registration.

24. The highest exposures to pesticides are associated with occupational exposures and pesticide application by unmanned aerial vehicle platforms (i.e., drones) may substantially reduce this risk, as well as improve access to apply pesticides on arable land. Recent OECD work on drone application of pesticides highlighted the information gaps for regulatory assessment of hazards and risk of proposed use. The current and future OECD work is intended to address the recommendations from an expert group on data needed to evaluate the potentially unique risk of drone application of pesticides. The work on drones, in partnership with industry, will develop computational models and generate data to address the information gaps needed to evaluate potential impacts on human health and the environment. It is expected that this work may facilitate future registration of drone application of pesticides globally and harmonised approached for consideration of operator,

bystander, dietary exposure, environmental fate and behaviour, and ecotoxicological risks associated for regulatory consideration.

25. For both pesticides and biocides, issues of antimicrobial resistance may be addressed, pending specific project proposals.

Risk assessment of products of modern biotechnology

26. The development of tools and approaches for ensuring the safety of transgenic organisms before release in the environment and the safety of novel foods and feed derived from them, will continue. The transgenesis technique is still used in many research and breeding programmes for triggering traits of interest in a range of plants (crops, trees, flowers), animals (fish, mammals), insects (e.g., mosquitoes modified for preventing disease transmission to humans), and micro-organisms such as micro-algae for biofuel production. For plants, modified varieties with new traits such as tolerance to drought or biofortification are now reaching the market.

27. In addition, the current development of ‘new breeding techniques’ such as genome editing allows for more precise genome modifications, at a much quicker pace and lower cost compared to the transgenesis technique. This evolution is rapid, inducing technical and economic impacts as well as changes in stakeholders involved, such as smaller enterprises and local research centres in developing economies. To support the implementation of gene drive, additional biology consensus documents for mosquito species known to be vectors of malaria and other tropical diseases are needed.

28. Synthetic biology is also a rapidly developing area where participatory governance and safer innovation approaches will be essential to ensure appropriate regulation and safe use in the environment. The challenge for policy makers and regulators is whether to - and how to - regulate these new types of products while fostering innovation. Problem formulation to identify relevant data needs has already been adopted for evaluations of products of biotechnology released in the environment. This methodology may also be applicable to other new developments in agriculture.

29. Regarding novel foods and feeds, innovative techniques (e.g. cell culture food), and new types of ingredients (e.g. insects or biofuel by-products for feed) are now being reviewed by safety authorities.

30. The OECD programme should continue the surveillance and review of these new techniques and products, provide the platform for authorities to exchange information, promote harmonisation, identify gaps and develop missing assessment tools and guidance where appropriate.

Pillar 2: Regulatory and non-regulatory risk management approaches

Objective

32. The objective of this pillar is to improve the effectiveness and efficiency of risk-management approaches through the development of guidance, methods, tools and sharing of best practices. This includes expanding the suite and complementarity of risk management approaches that are both regulatory and non-regulatory in a manner that supports more pro-active and preventive risk reduction.

Type of activities

33. The work related to this pillar would include, among others, the development of guidance and case studies for risk management approaches, information and tools to select safer and more sustainable chemicals and related products and processes (in a substitution or innovation context) and to improve the application of sustainable chemistry in multiple value chains. This would also include work on the safe and sustainable innovation approach concept.

34. Furthermore, this would include work on risk management activities for specific chemicals of mutual concern (e.g., PFAS), to improve the valuation of effects of chemicals on health and the environment and broader socioeconomic assessment supporting chemicals management and sustainable materials management from a chemical perspective (including e.g. on plastics and the chemicals/waste interface).

35. This pillar would also include continuation of the work on the prevention of chemical accidents, the establishment and implementation of Pollutant Release and Transfer Registers and Best Available Techniques for pollution prevention and control.

Focus of the work in 2027-2030

Risk Management Approaches

36. Work on risk management approaches would include case studies and sharing of practices for specific chemicals or focus on a particular approach, contributing to an understanding of the effectiveness of risk management measures. From these discussions, particular guidance or best practice could be identified for development.

37. Sharing of such approaches will also aid in increasing the understanding, profile and complementarity of non-regulatory risk management measures such as economic incentives or public access to information (e.g., PRTRs). As emissions at the waste stage of chemical life cycle continue to be highlighted as a key risk management issue, opportunities for horizontal work with EPOC would be explored.

38. Building on current collaborative work with EPOC on improving socioeconomic aspects of chemicals management through improving the valuation of health and environment impacts, additional guidance or best practices can be developed or shared that will improve the evidence base for decision-making. This can also link to the development of future information or guidance to increase the use of economic tools and incentives in the context of risk management. Topics such as cost assessment and analysing the effectiveness of risk management measures can also be considered.

39. It is envisioned that further work on information sharing, risk management and shifting to safer alternatives for per and polyfluorinated alkyl substances (PFAS) will continue. This includes topics on information on alternatives to PFAS, sharing of risk management approaches, remediation, monitoring, impacts on circularity and further

understanding of risk management aspects related to fluoropolymers. Joint projects with EPOC will be investigated (e.g. linkages with circular economy).

40. Selection of safer and more sustainable chemicals is continuing a convergence of the topics of sustainable chemistry and substitution. Chemical selection is continuous, whether as a substitution response to regulation, in innovation, process change and product development. There is a continuing gap in alignment of sustainability attributes that build on established safety considerations, that would better enable proactive chemical management choices. While many frameworks and approaches exist, harmonisation of key attributes, their definition and metrics, are lacking. Efforts to align these elements for impactful attributes could continue. This also links to potential work on chemicals in plastics for ensuring sustainable design of materials from a chemical perspective.

41. Work will continue on operationalising the Safe and Sustainable Innovation Approach (SSIA) for nanomaterials and advanced materials, and biotechnology products. Lessons and methodologies developed under this initiative could also be extended to chemicals and related products and processes more broadly.

42. Another work stream will be the refining of pre-regulatory assessment tools, which support regulatory preparedness by identifying aspects requiring further consideration regarding the safety and sustainability of advanced materials. The tool integrates considerations on Safe(r) and Sustainable by Design (SSbD)¹.

43. Further efforts will focus on developing practical guidance for SMEs to help them incorporate SSbD attributes as early as possible in the innovation phase of nanomaterials and advanced materials. In addition, new guidance will be developed to strengthen the Trusted Environment initiative, promoting data sharing and collaboration between regulators and innovators that enhance regulatory preparedness.

44. The OECD will continue to monitor the emergence of advanced materials, with particular attention to their safety, sustainability, and regulatory coverage. It will maintain its role as a global platform for information exchange, helping to identify gaps and priorities for new guidance or tools. To support this, additional case studies on specific advanced materials can be developed. The case studies have been useful to identify early signals related to their safety and sustainability, provide insights for risk assessment, and highlight potential areas for regulatory or policy action.

45. For biotechnology products, following the pilot project developed in 2021-23 focusing on two examples (Bt Maize, Gene drive), the work could continue on aspects of non-regulatory safety approaches considering Safer Innovation practices that could possibly be used by industry, in cooperation with authorities, at early stages of product development.

Risk reduction of pesticides and biocides

46. In order to promote the sustainable use of biocides and the sustainable management of harmful organisms, different activities will be carried out, both on reducing risks from the use of biocidal products and on promoting non-chemical alternatives for pest management. Exchange of best practices on topics such as certification of professional users of biocidal products, spray drift reduction, communication to non-professional users will be organised. Measuring and avoiding resistance to antimicrobials and insecticides will also be discussed. On non-chemical alternatives, the first step will be the development of a guidance on efficacy testing.

¹ <https://doi.org/10.1787/a9a80171-en>

47. A core element of the OECD work on pesticides will continue to be measures that reduce risks from active ingredients and plant protection products. The Pesticide Programme considers measures to reduce risks as an integral part of all of the work areas, including safer and more sustainable products and application, as well as rigorous and harmonised methods on the potential hazards in order to register substances. Work will continue on analytical methods and guidance for measuring pesticide residues in the environment, drinking water and food products, and on global measures to counter the illegal trade of pesticides, including the increasing online trafficking of illegal products. The OECD will continue to provide a forum for sharing experience through meetings and documents, as well as through web-based platforms for reporting incidents.

Pollutant Release and Transfer Registers (PRTRs)

48. The CBC reported to Council in April 2023 on the implementation of the Recommendation on Establishing and Implementing PRTRs [[OECD/LEGAL/0440](#)]. It observed that Adherents have made significant and ongoing efforts to implement the Recommendation as a whole, however, some improvements that Adherents could address further in implementing the Recommendation are found in terms of (i) PRTR data application and (ii) international comparability of PRTR data.

49. The CBC was requested to report back to Council on the implementation, dissemination and continued relevance of the Recommendation by 2028, and the Working Party on PRTRs (WP-PRTRs) will support Adherents particularly focusing on the two topics above.

50. Specifically, further actions to be undertaken include supporting Adherents in making better use of PRTR data, facilitating information-sharing, and identifying good practices among Adherents. To further enhance international comparability of PRTR data, the OECD could support Adherents by updating and promoting the OECD Harmonised list of pollutants and reporting sectors and conducting further analysis on worldwide releases of pollutants.

51. To ensure PRTR dissemination efforts remain effective and continue to evolve, work could include timely updates to OECD guidance documents on PRTRs to reflect the needs of Adherents; regular enhancement to OECD online tools with the latest data and resources, particularly recognising the OECD PRTR Data Explorer² as a key potential component of a high-level indicator on environmental burden for measuring progress with the implementation of the Global Framework on Chemicals; organising capacity-building activities more closely aligned with the Recommendation; and continuous cooperation with international bodies implementing international treaties related to PRTRs, such as the Kyiv Protocol and the Escazú agreement.

Best Available Techniques (BAT) for integrated pollution prevention and control

52. The Recommendation of the Council on Integrated Pollution Prevention and Control [[OECD/LEGAL/0256](#)] was revised in 2024 to mainly integrate the BAT approach as one of the methods to prevent and control pollution. The EPOC, in co-operation with the CBC, is tasked to serve as a forum for exchanging information, good practices and innovative experiences with respect to the implementation of the Recommendation, and support and facilitate Adherents' efforts to implement the Recommendation, in co-operation with other relevant international organisations and stakeholders.

53. In this context, work within the CBC will continue to support countries in establishing and implementing BAT-based environmental permitting policy. The focus will

² [Monitoring and preventing industrial pollution](#)

be on promoting the adoption of BAT by governments and industries to reduce sectoral emissions and the release of substances from their activities. Efforts will also continue to assist countries in adopting practical solutions to lower emissions and enhance environmental performance by highlighting existing good practices.

54. The OECD will update and expand the existing reports on policies on BAT or similar concepts, approaches to establishing BAT, and measuring the effectiveness of BAT policies. As most national BAT frameworks have undergone major revisions over the past decade, the updated work will analyse the new policies and technical approaches adopted by various countries and highlight key changes and innovation introduced in each system, recognising that BAT as a continuous learning framework rather than a static list of techniques.

55. The OECD could consider developing new guidance on BAT-based environmental permitting, focusing on supporting small and medium-sized enterprises (SMEs) in effectively adopting BAT. Further work could be on cross-media effects and BAT measures impacting air, water, and waste, through country case studies that share practical experiences and solutions, as well as on integrating BAT with broader environmental themes such as the circular economy. New work could also include AI and digitalisation, economic aspects of BAT determination and implementation, as well as new areas for BAT development, including chemical recycling.

56. The OECD will continue offering on-site support through targeted capacity-building events, assisting countries in strengthening permitting systems and implementing BAT-based approaches in sectors of national importance. These efforts would benefit from collaborating with EPOC.

Chemical accidents

57. On chemical accident prevention, preparedness and response, a key aspect of the programme is the sharing of information between countries on recent accidents and new domestic policies/activities related to chemical accidents.

58. Continuation of on-going topical areas is foreseen:

- Continuing the work on improving lessons learning from accidents. Chemical accidents continue to happen, and many demonstrate great similarity to past events leading to the conclusion that learning is not always taking place.
- Continuing to share information on future risks from new fuels/renewables (e.g., hydrogen, ammonia as an energy vector, lithium-ion batteries, solar power and carbon capture utilisation and storage).
- Looking at approaches to sharing information with the public on hazardous installations including challenges and advancement of practices.
- Examining policies and practices to ensure that sites are subject to clean-up and long-term recovery after a major chemical accident.

59. Several projects could be considered for future development, such as:

- Updating the *Corporate governance for process safety: Guidance for senior leaders in high hazard industries* issued in 2012³.

³ [Corporate governance for process safety | OECD](#)

- Updating the Safety Performance Indicators Guidance documents for industry and for public authorities and communities, both published in 2008.
- Managing hazardous substances at port areas. Work could include the identification of strategic aspects of accident prevention and safety management in the specific context of port areas.

Pillar 3: Data access, exchange and dissemination

Objective

60. The objective of this Pillar is to support the maintenance of an OECD ecosystem of electronic tools to support data sharing. The focus of work at the OECD will be to further improve the interoperability of platforms and tools that collectively make up the ecosystem.

Type of activities

61. The OECD ecosystem of electronic tools is based on a series of OECD standards that are interoperable with structured chemical databases (such as IUCLID) and further work will be needed to ensure that data can be shared through common platforms, using harmonised standards, between jurisdictions and countries. Additional work will be needed to build integration between global data repositories and to connect different OECD and national/regional IT tools. To this end, experts will consider biological and information technology aspects of data reporting to help ensure data and databases are structured to support interoperability between IT tools and foster the sharing of [standardised] data among governments. The OECD Secretariat will increase communication and collaboration between IT expert groups to support this initiative. In addition, the Secretariat will discuss with data experts the emerging tools (e.g. AI and large language models) and superior external resources that could be leveraged for electronic data identification and management.

62. The adoption of the "Recommendation of the Council Concerning Access and the Protection of Proprietary Rights to Non-Clinical Health, Safety and Environmental Data and Information on Chemicals" has highlighted the challenges with the legal exchange of data between companies, between countries and between jurisdictions. The facilitation of practical solutions in the future to address these challenges will ensure that more and more data can become accessible to the public and be easily used for regulatory decision-making.

Focus of the work in 2027-2030

Reporting formats and standards for chemical safety data

63. To facilitate data reporting, review, and electronic exchange, the OECD has developed standardised templates and reporting formats for ensuring the types and details of elements used to evaluate data quality and chemical safety are consistently recorded. There are now 130 OECD Harmonised Templates (OHTs)⁴ for reporting chemical safety data used in risk assessment for pesticides, biocides, industrial chemicals, food/feed additives, as well as an OHT (201) for mechanistic data from *in vitro* and *in silico* methods. There are also templates for reporting IATAs and Defined Approaches. Formats have also been developed for reporting Quantitative Structure Activity Relationship (QSAR) Models and QSAR model predictions, and more recently, reporting formats have been developed for transcriptomics and metabolomics. Activities in the next Programme of Work will expand the number and types of OHTs and consider how to improve machine readability of OECD data standards, starting with reducing and standardising free-text fields associated with data reporting formats. Other activities will focus on improved guidance on the specific key elements and level of detail needed to ensure reported data are less heterogeneous and more usable by regulators for assessing chemical safety.

⁴ [Harmonised Templates | OECD](#)

64. Accompanying the reporting standards are various guidance documents on how to use them. In addition, general guidance such as the *Guidance Document on Good In Vitro Methods Practices*⁵, *Guidance Document for Describing Non-Guideline In Vitro Test Methods*⁶, and *Guidance Document on the Generation, Reporting, and Use of Research Data for Regulatory Assessments*⁷ provide recommendations for method developers and end users. Guidance in these documents can help standardise aspects of development, validation, and reporting of NAMs that are not yet part of harmonised methods but may nonetheless be useful for regulatory purposes. To help foster implementation of NAMs for chemical safety assessment, the OECD will continue to promote available guidance, particularly on aspects to help improve the usability of research data.

65. OECD reporting standards and guidance documents are used as the foundational basis for both detailing the information and evaluating its suitability (e.g. guidance on AOPs, grouping and read-across, describing non-guideline *in vitro* methods, validation of *in silico* methods, etc.). Standards will continue to evolve, based on user's experiences, and new standards will be developed to help harmonise information collection and reporting on new types of materials or new types of technologies used to evaluate chemical risks. This standardisation is key for building consistency and confidence in new technologies that can be harmonised for regulatory decision making. New standards will remain compatible and interoperable with the ecosystem of electronic data tools outlined below.

Electronic platforms for storage/access and dissemination of chemical and biotech data

66. With the continuing growth of knowledge on the properties of chemicals and the related proliferation of databases capturing some aspects of this information, there is an opportunity to standardise the information and provide access to consolidated data to support chemical safety decisions. The OECD is maintaining an ecosystem of electronic tools and databases based on interoperable, structured data and will assist countries in meeting national and international chemical management goals, create efficiencies and reduce duplication of effort and further disseminate information to the public and other stakeholders.

67. The OHTs are the basis for the structure of the IUCLID database, which is increasingly used globally for storing chemical data. The OECD, in collaboration with stakeholders, will continue to develop guidance for customisation, extension and integration with other tools, and to allow capture of data elements for specific legislative data needs.

68. In addition, the eChemPortal provides access to information on chemical prepared by governments, including classification of hazards, exposure, and use. The OECD will reflect on the current status of the platform and consider the strategic vision of a future version that takes into account countries' needs and commitment to timely updates of data sources, along with Secretariat resources.

69. The OECD PRTR Data Explorer⁸ will continue to be maintained, updated and, if possible, expanded to other countries and other pollutants. The OECD will continue to propose that this dashboard should be used as a component of the high-level indicator on

⁵ <https://dx.doi.org/10.1787/9789264304796-en>

⁶ <https://doi.org/10.1787/9789264274730-en>

⁷ <https://doi.org/10.1787/8d49ec1d-en>

⁸ [Monitoring and preventing industrial pollution - OECD](#)

the environmental burden for measuring progress with the implementation of the Global Framework on Chemicals.

70. The BioTrack⁹ database disseminates information on GMOs approved for release in the environment or for use as food/feed ingredient in OECD Members and some Partners. The unique identifier assigned to each GMO allows easy exchange with other database. Links to approval decisions in countries are provided where publicly available. The product database should continue to grow with entries from new countries and extend to new plant species (and possibly animal species) and new traits. The interoperability with other databases on biotechnology products (FAO GM Food Platform, UNEP CBD Biosafety Clearing House) will be explored further for facilitating mutual exchange of information and data. Since more products of biotechnology are being developed, it will be evaluated whether the unique identifier system should be extended to animals and other novel organisms.

Electronic tools for chemical assessment

71. The QSAR Toolbox will continue to evolve as a critical tool for data analysis. Though OHTs foster harmonised data structure and IUCLID is gaining global traction as a data warehouse, these are simply measures to store and access data. The entirely interoperable QSAR Toolbox allows users to perform reproducible and transparent assessment of chemical hazards using non-animal methods. Recent developments to the Toolbox have provided a web interface with increasing functionality and the ability of third parties to make their own models extensions of main profilers and QSAR models that are available in the Toolbox repository. In addition, the Toolbox can search experimental data on over 100,000 chemicals including 3,000,000 data points to support chemical grouping and read-across analyses.

72. Recently, the OECD (Q)SAR Assessment Framework¹⁰ which includes criteria for assessing (Q)SAR models and resulting predictions, along with a checklist and guidance for evaluating each criterion, was developed to assist regulators in considering (Q)SAR data included in submissions. Additional guidance for the review and acceptance of models and predictions of chemical hazard will be developed by QSAR experts intended to support regulators who may not have expertise with computational models. In addition to measures to assess the scientific confidence and quality assurance of computational data, the QSAR Toolbox will evolve in tandem with the IUCLID database to improve the user interface. Furthermore, both the Toolbox and the repository of 3rd party tools will expand functionality to meet the needs of the growing user base across geographical regions and chemical sectors.

73. Work has started to update the OECD Tool to estimate overall persistency (Pov) and long-range transport (LRTP) for the identification of persistent organic pollutants. This work will most likely continue throughout 2027-2030.

Legal access to information

74. A *Best Practice Guide on Chemical Data Sharing Between Companies* was recently published¹¹. It is possible that additional projects focusing on the exchange of data between regulatory schemes and between governments will be launched in the future.

⁹ [BioTrack Product Database - Home page \(oecd.org\)](https://www.oecd.org/biotrack/)

¹⁰ [\(Q\)SAR Assessment Framework \(oecd.org\)](https://www.oecd.org/qsar/)

¹¹ <https://doi.org/10.1787/c5f3c668-en>

Pillar 4: Outreach and capacity building

Objective

75. The objective of the work under this pillar is to improve the effectiveness and efficiency of the OECD's and its Members' contributions to international efforts to implement the Global Framework on Chemicals. Furthermore, the objective is also to strengthen the collaboration with Partners on the management of chemicals and the products of modern biotechnology.

Type of activities

76. The main activities under this pillar will be fostering stronger and more inclusive partnerships with selected Partners, developing promotional material, disseminating standards and technical guidance as well as carrying-out capacity building and training events for Partner countries. Participation of non-Members in regular activities including plenary meetings, workshops and webinars will be encouraged.

Focus of the work in 2027-2030

77. The work will focus on implementing the *CBC Vision for Contributing to the OECD Development Strategy* [ENV/JM(2014)2/FINAL], possibly updated, and the *CBC Global Relations Strategy* [ENV/CBC(2024)7/FINAL].

78. Efforts will be made to foster stronger and more inclusive partnerships with selected Partners: accession countries, key Partners, countries benefiting from cooperation agreements with the OECD as well as countries of the Indo-Pacific region, the African continent and Eurasia.

79. Development and promotion of tools used for building capacity in developing countries will include:

- Expanding and improving the *IOMC Toolbox for Decision Making in Chemicals Management*
- Technical material targeted to regulatory authorities (e.g., guidance on chemical registers, consensus documents for biotechnology safety assessment on new species of interest to non-Members)
- Awareness-raising material targeted to policy makers (e.g. on the benefits of chemical accident prevention, preparedness and response)

80. In accordance with the directions given by the CBC, the Secretariat will coordinate and organise the response to requests from Partner countries for capacity building activities. The topics for capacity building will respond to the countries' needs and requests in the case where the OECD and its Members have the relevant expertise or can cooperate with other IGOs, in particular the Participating Organisations of the IOMC, to provide this expertise. It is expected that requests will focus on pollution prevention, GHS implementation, chemical accident prevention, preparedness and response, pesticide risk reduction, the promotion of sustainable chemistry, chemicals waste management and support in drafting national chemicals policy and legislation. Through capacity building, the Secretariat will also promote the Mutual Acceptance of Data adherence and OECD standards on sound chemicals management, with a view to closing the gap between the standards used in developing countries and emerging economies compared to those developed by the OECD. Resources allowing, the OECD will organise training on how to

establish monitoring authorities for implementing the OECD Principles of Good Laboratory Practices.

81. The OECD will participate in implementation activities of the Global Framework on Chemicals, including capacity-building activities, as well as of Issues of Concern for which the CBC has expertise.

82. Efforts will be made for better information sharing between the OECD, its Member countries and the Participating Organisations of the IOMC on present and planned capacity building projects in order to maximise synergies and the use of scarce resources. Efforts will also be made to evaluate the impact of the capacity-building activities.

83. The existing Networks of Experts (on industrial chemicals, agricultural pesticides, biocides) will serve as a pool of potential experts for supporting the Secretariat in building capacity of developing countries. The CBC or its Working Parties may be willing to support the establishment of additional Networks of Experts¹² or other forms of partnership (e.g., on risk management, PRTRs, chemical accident prevention, preparedness and response).

84. Dissemination of information on OECD tools and guidance will take the form of webinars (with increased simultaneous interpretation, especially in Spanish), tutorials, and promotional material. As the OECD has moved to a new model of publications, additional funds will need to be raised to disseminate reports from the EHS Programme as official OECD publications.

Other

85. The CBC will continue to explore the regulatory implications of emerging issues (e.g. through focus sessions) as they come up and can at any moment – resources permitting – launch new activities, provided that the OECD can add value towards addressing the issues.

86. It should also be noted that following the adoption of the Global Framework on Chemicals in September 2023, the OECD will look for opportunities to contribute to the implementation of this framework. The creation of the Intergovernmental Science-Policy Panel on Chemicals, Waste and Pollution in 2025 will contribute to the identification of emerging priorities for governments and the OECD my wish to contribute to any analysis the Panel will work on in the future as well as any follow-up work. The EHS Programme would then be adapted accordingly.

¹² Networks of experts are not subsidiary bodies of the CBC Working Parties