

The Strategic Approach to International Chemicals Management (SAICM) represents a key policy framework developed to guide efforts to achieve the 2020 goal set out in the Johannesburg Plan of Implementation (JPol). This goal renews the commitments made at the UN Conference on Environment and Development, Rio de Janeiro, Brazil, 1992, and reconfirmed at the UN Conference on Sustainable Development held in Rio in 2012 'to the sound management of chemicals throughout their life cycle and of hazardous wastes for sustainable development as well as for the protection of human health and the environment, inter alia, aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment.'

The JPoI is a key political commitment underlying the SAICM Overarching Policy Strategy. In the JPoI, it was agreed that governments, relevant intergovernmental organizations, the private sector and all major groups should play an active role in changing unsustainable consumption and production patterns. This recognizes the importance of partnerships in achieving sustainable development objectives through sound chemicals management. As a result, SAICM is unique among chemicals and waste multilateral agreements in being a joint effort between all actors rather than an intergovernmental agreement.

The SAICM Overarching Policy Strategy follows earlier agreements, in setting out key needs and objectives under five broad headings:

- a. Risk reduction: to assess and manage risks, addressing product life-cycles, implementing risk reduction measures including scientific methods, safer alternatives, affordable sustainable techniques to prevent the adverse effects of chemicals on human health and the environment.
- Knowledge and information: to facilitate informed decision-making through improved access to, and understanding of, technical information relating to hazards, risks and impacts.
- c. Governance: to pursue the sound management of chemicals through multi-sector and multi-stakeholder approaches, creating enabling conditions and strengthening enforcement and implementation of national, regional and international agreements and promoting codes of conduct based on environmental and social responsibility.
- d. Capacity-building and technical cooperation: to increase the capacity for sound management of chemicals in all countries as needed, especially in developing countries and countries with economies in transition, including through partnerships and mechanisms that promote technical cooperation and the take-up of appropriate and clean techniques.
- e. Illegal international traffic: to promote cooperation and information sharing to strengthen capacity at national, regional and international levels for the prevention and control of illegal international traffic of banned or restricted chemicals mixtures and compounds and wastes.



In addition to the Overarching Policy Strategy, the SAICM Global Plan of Action compiles a number of work areas and activities through which the SAICM objectives are likely to be realized. The work areas and activities are amended by the International Conference on Chemicals Management (ICCM) that also monitors progress towards the achievement of the 2020 goal.

The SAICM objectives provide the basis for the development of the work programmes of those intergovernmental organizations engaged in efforts to achieve the 2020 goal of the sound management of chemicals.

These organizations are grouped by a memorandum of understanding into the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) established in 1995, following recommendations made at the 1992 Rio Conference, to strengthen cooperation and increase coordination of policies and activities, pursued jointly or separately, to achieve the sound management of chemicals.

The IOMC Toolbox is a direct response to calls made at the ICCM to further enhance concerted actions towards the 2020 goal. It is being developed based on the IOMC recognition that while its member organizations have many items of guidance pertinent to the sound management of chemicals, these are dispersed between the organizations and their programmes, may be incomplete, duplicative or inconsistent in approach, and are implemented separately by the organizations in ways that do not necessarily encourage coherent and integrated implementation.

In providing a unifying (if not harmonized) methodology, based on a number of existing techniques, and modules delivering comprehensive supporting technical information, the UNIDO IAMC Toolkit can be a key element of the IOMC Toolbox, filling the important niche of supplying key tools for capacity building in industry and assisting those that regulate and monitor industrial performance.

The following table serves to demonstrate the key points of contact between the toolkit and the work areas and activities set out in the SAICM Global Plan of Action.

Table: Relevance of the IAMC Toolkit to work areas and activities of the SAICM Global Plan of Action. Items are presented in the order of work areas as presented in the SAICM text.

Work Area	Activity	IAMC Toolkit relevance	Comment
Human health protection	2 Fill gaps in abilities to access, interpret and apply knowledge	х	Toolkit provides means to access and use hazard and risk information, improves risk assessment and encourages take-up of best practices in industry use of chemicals.
	3 Develop and use new and harmonized methods for risk assessment	xx	Toolkit brings together risk assessment methodologies to provide an integrated approach for industry.
	6 Include a range of preventive strategies	х	Toolkit supports preventive strategies through structured identification of hazards and risks and adoption of best practices to avoid or minimize risks and their impact.
Occupational health and safety	13 Develop a system of health and environmental impact assessment in chemicals handling to be incorporated in occupational safety and health programmes	xx	Toolkit provides a structured methodology that integrates OHS with hazard and risk assessment and provides preventive best practices.
	14 Develop, enhance, update and implement ILO safe work standards etc.	XX	Toolkit builds on accepted safe work practices in relation to chemicals use in industry to build capacity in safe handling of chemicals.
	19 Avoid worker exposure through technical measures where possible	xx	Toolkit sets out a structured approach to the consideration of options to minimize chemical risks in industry and thus avoid worker exposure to chemical impacts.
	255 Promote the necessary training and capacity building for all people involved directly and indirectly with chemical use and disposal	xxx	Toolkit provides a structured approach to the training of industry personnel in sound chemicals management.
GHS	101 Complete GHS awareness-raising and capacity building guidance and training materials	х	Toolkit incorporates information and training materials on the integration of GHS to industry use and handling of chemicals, thereby enhancing efforts to disseminate GHS and build capacity and interest in its use.
	249 Promote training in hazard classification	XX	Toolkit makes practical use of GHS and its hazard classifications to highlight its usefulness in sound chemicals management in industry.
Cleaner production	43 Encourage sustainable production and use and promote the transfer, implementation and adoption of pollution prevention policies and cleaner production technologies, in particular BAT/BEP	xxx	Toolkit provides considerable information on best practices likely to reduce releases of chemicals and waste.
	238 Provide training in cleaner production techniques	xx	Toolkit training methodology is specific to sound chemicals management but is widely compatible with cleaner production techniques and is similarly founded on the notion that sound chemicals management practices provide economic and competitive advantages for industry.



Work Area	Activity	IAMC	Comment
		Toolkit relevance	
	241 Design clear and simple manuals and guides on practical measures to assess production methods and implement improvements	xxx	Toolkit materials designed to provide an integrated approach to the introduction of innovative sound chemicals management practices in industry.
	242 Promote the transfer of technology and knowledge of CP and manufacture of alternatives	х	Toolkit promotes transfer of information and knowledge in relation to sound chemicals management in industry using methods and approaches that are analogous to and incorporate CP.
PBTs+	54 Promote the use of safe and effective alternatives, including non-chemical alternatives	XX	Toolkit provides a structured approach to the substitution of highly hazardous chemicals through the selection of less hazardous and non-chemical alternatives.
	56 Articulate and integrated approach to chemicals management	X	Toolkit represents an initiative to promote industry engagement in sound chemicals management.
Risk assessment	65 Establish knowledge of risk assessment procedures, building on existing products such as those generated by OECD	xx	Toolkit builds on existing risk assessment procedures, including those generated by OECD and other IOMC organizations, to promote risk minimization strategies.
	67 Apply life-cycle management approaches to ensure that chemicals management decisions are consistent with the goals of sustainable development	xx	Toolkit encourages the consideration of chemical risks through the product life-cycle and production cycle to integrate economic, social and environmental objectives towards sustainable business development.
	131 Address gaps in the development of new tools for risk assessment, harmonization of risk assessment methods, better methods to estimate the impacts of chemicals and the ability to access, interpret and apply knowledge on risks	xxx	Toolkit integrates a number of existing tools relating to hazard and risk assessment, chemical substitution and minimization, occupational health and safety, release and waste reduction and accident prevention and preparedness. It provides a structured training methodology to boost capacity to interpret and apply risk information and knowledge.
	133 Further develop methodologies using science-based risk assessment procedures and science based risk management procedures	xxx	Toolkit combines a structured methodology for risk assessment and consideration of innovative, available and commercially viable alternative techniques.
	135 Fill gaps in abilities to access, interpret and apply knowledge	xxx	Toolkit is designed to make available information on hazards, risks and safe use of chemicals to target end users in industry. It incorporates GHS methodologies in consideration of hazards and in selecting options for improving performance.
Waste management and minimization	70 Prevent and minimize hazardous waste generation through the application of best practices, including the use of alternatives that pose less risk	xxx	Toolkit methodology directly addresses prevention and minimization of releases, including waste arising from production, through implementation of options for chemical substitution and best practices that prevent or reduce releases and waste generation.
	71 Implement the Basel Convention and waste reduction measures at source	xx	Toolkit supports efforts to implement the Basel Convention and other chemicals MEAs by promoting risk reduction through chemical and non-chemical best practice alternatives to existing operations, in particular those that substitute or reduce chemical consumption and waste generation.



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	162 Support research on best practices in waste management resulting in increased waste diversion and recovery and reduced chemical hazards	х	Toolkit provides practical support for the identification, assessment and implementation of best practices to reduce chemical and waste-related risks at industry level.
	258 Implement capacity-building programmes on waste minimization and increased resource efficiency to reduce the volume and toxicity of discarded materials	xxx	Toolkit builds capacity in industry to identify best practice options to remove or reduce high hazard and high risk materials in industry production cycles and waste streams.
	262 Implement demonstration projects on waste minimization and efficient resource management	xx	Toolkit provides a wide range of case studies and examples of sound chemicals management minimizing waste and boosting resource efficiency implemented through continuing programmes of the Cleaner Production Network institutions.
Emergencies	74 Develop integrated national and international systems to prevent major industrial accidents and for emergency preparedness and response	xx	Toolkit builds on existing tools such as APELL and the Flexible Framework by providing industry-specific measures to prevent accidents, reduce their impacts and boost safe working conditions.
	78 Address gaps in the application of safety procedures relevant to the operation of chemical-intensive facilities	xxx	Toolkit promotes hazard and risk assessment awareness in industry and provides integrated and comprehensive options to improve safety and operational effectiveness.
Industry	189 Encourage use of voluntary initiatives	xxx	Toolkit encourages voluntary industry participation by promoting safe management practices that also represent improvements to economic performance.
	190 Promote corporate social responsibility for the safe production and use of all products	xxx	Toolkit promotes the corporate consideration of sound chemicals management practices that integrate safety and risk reduction with production cycle and product improvements.
	191 Promote innovations and continuous improvement of chemicals management across the product chain.	xxx	Toolkit methodology builds capacity to take up innovative best practice options to improve chemicals management following evidence-based risk assessment.
	192 Promote within the industrial sector the adoption of PRTRs and cleaner production methods	xx	Toolkit promotes enhanced in-house measurement and control of input inventories, production cycles and releases thereby directly assisting industry reporting, for example to national PRTR systems and benchmarking against CP best practice.
Life cycle	119 Encourage management practices that take into account the full life-cycle approach to sustainable chemicals management emphasizing front-end pollution prevention approaches	xxx	Toolkit encourages the consideration of chemical risks through the product life-cycle at the production stage to boost front-end pollution prevention approaches.
	121 Utilize the life-cycle management concept to identify priority gaps in chemicals management regimes and practices and to design actions to address gaps	xx	Toolkit provides the means for industry teams to assess production cycle stages and product life-cycles to determine elements of concern to be address through the introduction of innovative alternative approaches and best practices.



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PRTR	125 Use PRTRs tailored to variable national conditions as a source of valuable environmental information for industry as mechanisms to stimulate reductions in emissions	xx	Toolkit promotes enhanced in-house measurement and control of input inventories, production cycles and releases thereby directly assisting industry reporting, for example to national PRTR systems, and benchmarking against CP best practice and stimulating release reduction efforts.
Education and training	155 Provide appropriate training and sensitization on chemical safety for those exposed to chemicals	xxx	Toolkit provides key materials for training and sensitization on chemical safety in industry and consideration of exposure risks during production, product life and disposal.
Stakeholder participation	164 Work to ensure broad and meaningful participation of stakeholders in devising responses to chemicals management challenges	х	Toolkit encourages participatory efforts within industry to identify and assess hazards and risks and implement best practices to reduce them.
Social and economic aspects	182 Consider and apply approaches to the internalization of the costs to human health, society and the environment of the production and use of chemicals	xx	Toolkit emphasizes the identification and implementation of approaches that provide economic as well as social and environmental gains thus promoting industry internalization of sound chemicals management costs.
	185 Enhance efforts to implement values of corporate social and environmental responsibility	xxx	Toolkit provides social and environmental drivers for industry improvement and demonstrates their economic and commercial value.
	187 Develop a framework to promote the active involvement of all stakeholders	xx	Toolkit highlights both internal participation in industry improvement processes as well as the necessity of considering external actors. It provides a framework for engagement.
Capacity building to support national actions	215 Strengthen capacities pertaining to implementation of international conventions concerning chemicals	XX	Hazard identification and risk assessment methods used in the toolkit highlight substances prohibited or restricted by the chemicals MEAs as of concern and a focus for substitution, prevention and reduction, thus boosting national implementation and compliance.
	224 Improve coordination at the national level and strengthen policy integration across sectors, including development of partnership with the private sector	х	Toolkit-based training, provided through national and regional institutions, builds industry capacity to partner with government and other stakeholders towards coordinated improved performance in sound chemicals management.
	227 Strengthen mechanisms for reporting and consolidating information necessary to produce baseline overviews that help determine domestic management priorities and gaps taking into account industry reporting initiatives	х	Toolkit promotes enhanced in-house measurement and control of input inventories, production cycles and releases generating data and information relevant to baseline overviews and benchmarking to determine sectoral management priorities and release reduction efforts.
	230 Develop training programmes in risk assessment and management-related health techniques and communication	xxx	Toolkit includes specific elements related to risk assessment, communication and reduction through the implementation of options to enhance safe working conditions and occupational health.