Chemical risk assessment and governance can be integrated and harmonised, but only up to a limit, albeit a variable limit, finds new research. The study’s authors examined the socio-political processes and factors surrounding integrated risk assessment and governance associated with chemicals in the EU. The research suggests there are opportunities for improvement if different views and implications of risk integration are considered through open communication and negotiations.

There are many types of governance involved in the assessment and response to risks. For example, the governance and regulation of chemicals may overlap with that of environment, health and waste management. As such, integration in the governance of risks is also seen as a good idea, yet many social and political obstacles may exist before this can be achieved. This research reviewed, analysed and combined existing research on the socio-political aspects of risks and risk integration in order to explore five aspects of EU governance and risk integration, focusing on the management of environmental and health risks from chemicals in the EU, aiming to identify limits and opportunities.

These aspects and their findings in brief were as follows.

**The actors and activities in multi-level and multi-sectorial governance.**
Risk governance brings together a wide range of actors — nations, political groups, institutions, industry and so on — who often have different areas of focus (e.g. environment or health) and roles in risk governance.

**The cultures of different groups of actors in risk governance.**
The authors roughly grouped these groups into ‘prototypes’, such as ‘egalitarians’ and ‘bureaucrats’. Prototypes see the needs and opportunities for integrated risk assessment and management in different ways. For example, bureaucrats may prioritise needs within the confines of their institutional structures and hierarchies, while egalitarians may emphasise the democratic treatment of risks to all groups, and be concerned with how trade-offs between risks are defined, for example, does the benefit of a risk rise as the level of risk increases, or can the same benefit be achieved from accepting a smaller, different, risk?

**Horizontal integration**
‘Horizontal’ refers to co-operation between different EU sectors or organisations on the same governmental level. In the EU the types of risks addressed and integrated vary by sectors, which are loosely defined by their economic activities or areas of protection (e.g. environment, energy or health).

However, there are often overlaps between sectors, which provide opportunities for convergence. For example chemicals control, which includes classification and labelling, registration, evaluation and authorisation of industrial and consumer chemicals, pesticides and biocides, can overlap with other regulative areas that focus on chemicals, such as regulation of pharmaceuticals, cosmetics, food additives, radionuclides and nanomaterials. Other fields close to and even overlapping chemicals control include GMOs; water, soil, and air pollution; waste and product policy; public and occupational health; consumer and citizen safety; and energy. The authors emphasise that approaches are variable and changeable between sectors, and note that any integration between sectors also requires the alignment of risk governance.

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Vertical integration

'Vertical' refers to the links between higher and lower levels of governing bodies or scientific committees; vertical integration also involves the contrasting directions of globalisation and localisation. The EU is increasingly part of regional and global political and economic systems, as well as being comprised of diverse Member States, adding a level of complexity which may be challenging to risk assessment and governance, presenting both problems and opportunities for integrated treatment of risks in increasingly connected socio-economic and political systems. There is a question about the appropriate level of Member State influence in the interpretation of cumulative risks, and in the procedures for assessing these. The appropriate level may depend on the circumstance; for example, a weak harmonisation for land-use planning allows specific, contextualised approaches. However, for chemicals, the tendency is towards harmonisation across Member States, and the authors highlight the lack of political and legal mechanisms in the governance of global flows of chemicals above the EU level as a potential problem.

Change and innovation in integrated risk governance

Social, political, technological and environmental changes can all influence risk governance. However, new risks and problems, such as emerging animal or plant diseases or previously unknown consequences of innovations, such as nanotechnology, can appear quickly and regulatory systems may be slow to react or respond to them.

The authors found that due to barriers of knowledge or complexity, in both the risks themselves and governance structures, not all risk considerations can be fully integrated, at least in detail, formally or extensively, due to the fact that there is no common measure (resulting from qualitative differences), and trade-offs are needed. For example, it is not feasible to treat all health risks and long-term ecological risks in a single process. This also means that simplifying governance by removing hierarchies may make some integration easier by cutting back bureaucracy; but, in other circumstances, it may make integration harder, by removing co-ordinating functions or regulatory oversight.

Overall, the authors believe that there are limits — such as barriers in vertical relations between the EU, its members and regions, and the global community — to the amount that the governance of risk assessment can be integrated; however, opportunities could also be identified to develop forms of risk regulation to become more flexible and responsive to new risks and to accommodate new knowledge of risks. The authors hypothesise that to do so will require identification of overlaps and a transparent, inclusive and self-aware approach to integrating risk, which is sensitive to the different types of socio-political contexts, values and decision structures involved.