

## Chapter 6

# Risk-based regulation: Making sure that rules are science-based, targeted, effective and efficient

Fundamentally, regulations should address risks – to health and safety, to the environment, to the economy, to consumers, etc. – and their causes. Rules and procedures that are based on science, focused, and proportionate are more effective, and less costly.

Rules and procedures that do not correspond to genuine risks tend to result in higher costs and burdens, without providing real benefits. Those that do not effectively target the causes of risks, based on findings from research and evidence, likewise fail to deliver. Regulation that is not useful or effective decreases public trust, and harms the economy. Risk-based regulation should thus be an important priority for governments.

“Risk” is the combination of the likelihood of harm, and of the potential severity of this harm: regulation should both *target* risks and be *proportional* to them. This means that rules should exist only when the risk is significant, that they should address the factors that can lead to harm, and that permit requirements, inspections and enforcement should be proportional to the level of risk of a given product, issue, business etc. This can mean e.g. differentiation between different businesses in terms of how much harm they can create to the environment, safety, health, or how likely this is to happen – or *within* a business, priority attention to be given to practical elements that can lead to higher risk to health, safety etc.

The COVID-19 pandemic has shown just how essential risk-based regulation is. Recovering from the crisis – and preparing for future crises – requires a correct understanding of risk mechanisms. The relative risk levels of different issues (e.g. for COVID-19 prevention: hygiene of surfaces vs.

distance between people vs. ventilation, with evidence showing that the former is vastly less important than the latter), facilities, businesses, etc. need to be assessed so that rules address the most risky aspects, and regulators direct resources to the right places.

### Challenges in responding to COVID-19 have shown the need for risk-based regulation

In the first few months of the pandemic, governments' risk communication was often inadequate. The fact that many initial reassurances were later contradicted by new findings led to a significant loss of credibility.

The pandemic response required massive spikes in supplies, testing, etc., which were often hampered by non-risk-based rules. For instance, some restrictive rules on COVID-19 testing led to considerable amount of unused testing capacity.

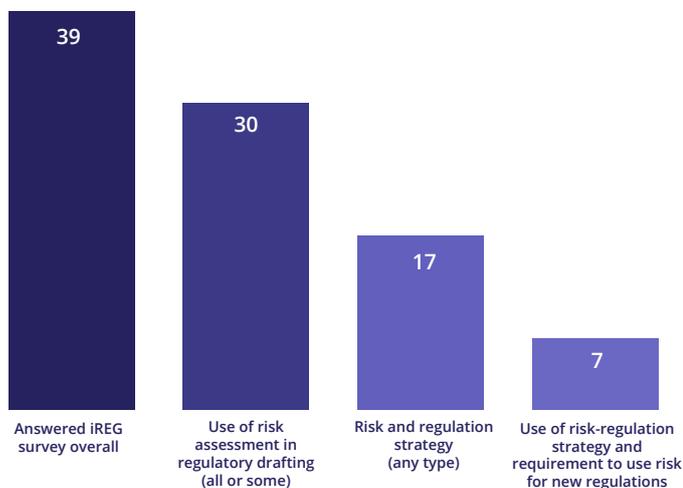
Recommendations for non-pharmaceutical interventions such as physical and social distancing, were frequently formalistic, did not focus on real contagion risks, and failed to educate the public about safe conduct.

Although COVID-19's airborne transmission has been clear since March 2020, very few regulations have been developed that target air quality. Real risk-based regulation will be needed to overcome this pandemic and prevent future ones.

Source: [www.theregreview.org/2021/05/17/blanc-urgent-need-indoor-air-quality-regulation/](http://www.theregreview.org/2021/05/17/blanc-urgent-need-indoor-air-quality-regulation/); <https://www.theregreview.org/2020/05/28/blanc-regulatory-delivery-lessons-covid-19-responses/>.

Even though the majority OECD countries perform risk assessments for some type of rules, most countries do not have a systematic approach to basing regulations on risk.

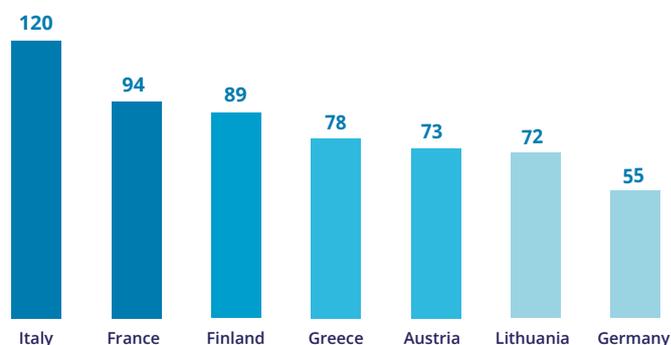
### Use of risk and regulation tools according to iREG survey data



Note: Data are based on 38 OECD members and the European Union.  
Source: Indicators of Regulatory Policy and Governance (iREG) Survey 2021.

Resources dedicated to enforcing regulations vary enormously among comparable OECD countries, and depend on institutional structures and legacy, rather than being proportional to risks.

### Number of regulatory inspectors in environment, food and occupational safety for 100 000 businesses with more than 10 employees



Source: Table 6, OECD Regulatory Policy Outlook 2021, Comparison of inspection staff resources in selected countries and regulatory fields, data retrieved from OECD research.

The science-based matrix of COVID-19 transmission risk shown below could form the basis for effective, risk-based regulation – but, so far, it has rarely been used by regulators.

		Low occupancy			High occupancy		
Risk of transmission	Low (✓) Medium (⚠) High (✗)	Outdoors and well ventilated	Indoors and well ventilated	Poorly ventilated	Outdoors and well ventilated	Indoors and well ventilated	Poorly ventilated
Wearing face coverings, contact for short time	Silent	✓	✓	✓	✓	✓	⚠
	Speaking	✓	✓	✓	✓	✓	⚠
	Shouting, singing	✓	✓	⚠	⚠	⚠	✗
Wearing face coverings, contact for prolonged time	Silent	✓	✓	⚠	✓	⚠	✗
	Speaking	✓	✓*	⚠	⚠*	⚠	✗
	Shouting, singing	✓	⚠	✗	⚠	✗	✗
No face coverings, contact for short time	Silent	✓	✓	⚠	⚠	⚠	✗
	Speaking	✓	⚠	⚠	⚠	✗	✗
	Shouting, singing	⚠	⚠	✗	✗	✗	✗
No face coverings, contact for prolonged time	Silent	✓	⚠	✗	⚠	✗	✗
	Speaking	⚠	⚠	✗	✗	✗	✗
	Shouting, singing	⚠	✗	✗	✗	✗	✗

\* Borderline case that is highly dependent on quantitative definitions of distancing, number of individuals, and time of exposure.

Source: Jones, N. R., et al. (2020), Two metres or one: what is the evidence for physical distancing in covid-19?, *bmj*, 370, <https://doi.org/10.1136/bmj.m3223>.

**The COVID-19 crisis has shown the shortcomings of regulation when it is *not* proportionate to risk: burdensome rules with little positive impact on health and safety. However, new technologies can help improve risk-based regulation.** Better availability of data and IT tools mean that it is easier to assess and target risks. Measures following the outbreak of the pandemic have included, for instance, in Canada, the CFIA developing criteria for remote audits of the certification bodies to reduce on-site activities under Canada’s Organic Regime. At the same time, in Finland, the Safety and Chemicals Agency (“Tukes”) has been testing different types of inspections such as Skype inspections.



## Related links

- ▶ [OECD Regulatory Policy Outlook 2021](#)
- ▶ [OECD 2012 Recommendation on Regulatory Policy and Governance](#)
- ▶ [Indicators of Regulatory Policy and Governance](#)
- ▶ [OECD Best Practice Principles for Regulatory Policy: Regulatory Enforcement and Inspections](#)
- ▶ [OECD Regulatory Enforcement and Inspections Toolkit](#)
- ▶ [Data-Driven, Information-Enabled Regulatory Delivery](#)
- ▶ [Risk and Regulatory Policy: Improving the Governance of Risk](#)
- ▶ [International Risk Governance Council: Risk Regulation](#)

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