

How the EU strangles innovation

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Thirty years of precaution



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Executive summary

The precautionary principle is rarely, if ever, discussed by ordinary people, yet it was a foundational concept of the European Union that now guides all of its policymaking.

In essence, the precautionary principle is the idea that politics should be guided by the assumption that it is better to be safe than sorry. It effectively proposes that no effort is too great to ward off the risk of danger – no matter how small that risk may be.

In reality, of course, the precautionary principle is rarely taken to its logical conclusion: the only way, for example, to ward off all risk of traffic accidents would be to ban vehicles altogether.

But the idea has been widely influential, and guides an approach to EU regulation, planning and policymaking that tends to inflate the importance of mitigating, or even avoiding, risks. The result – from fields as diverse as nuclear policy to public security, farming to town planning – is that technocrats spend an inordinate amount of time demanding and implementing risk-reduction measures to avoid unforeseen consequences.

Of course, every action, including inaction, has unforeseen consequences, and while the application of due caution is not unreasonable, a balance needs to be struck with other goals and social objectives. Risk is not necessarily a negative concept; taking a calculated risk is often the precondition for growth, innovation and social change. Instead, the EU's ever-wider application of the precautionary principle has held Europe back for 30 years.

This precautionary principle was incorporated as a foundational element of the 1992 Treaty on European Union. It has evolved from a vague and contested concept to a quasi-legal one.

From the first, the EU's technocratic institutions became world leaders in adopting the precautionary principle. It has since become a defining feature of the EU regulatory mechanisms.

The idea of the precautionary principle found fertile ground in EU policymaking because of the uniquely depoliticised form of the EU institutions. The EU was designed and directed as a system of managerialist governance – that is, dedicated to *managing* rather than changing society, and *governance* through experts and technocrats rather than government by elected politicians. In this, the EU found the precautionary principle a useful ally. It provides authority to a supposed expert class who are called on to assess and manage risks – a boon to an EU bureaucracy whose legitimacy rests on their claim to do just that.

The remit of the precautionary principle has expanded relentlessly from environmental policy through human health to now encompassing and impacting almost all EU policies, including regional aid, transport and financial services. Over the past 30 years, it has had a particularly severe impact on European agriculture – a sector already under considerable strain.

Even more important than the role the precautionary principle plays in EU law is its wider social and political influence. The principle is now such a bedrock assumption of the EU legal, political and financial elites that it is rarely even openly acknowledged.

The precautionary principle is not something that is open to revision. We cannot simply try to improve the balance between precaution and action. The precautionary principle is not a good idea that is just badly applied. Instead, the principle as an outlook must be jettisoned in its entirety. Doing so would reopen Europe to the spirit of innovation, dynamism and positive risk-taking that are needed to drive its people on to a better future.

Rejecting the precautionary principle is the condition for Europe's economic, cultural and political renewal.

Introduction

In 1992, the notion of a *precautionary principle* was incorporated into the founding Treaty on European Union (Maastricht Treaty), as Article 130r, Point 2 of Title XVI on the Environment.¹ It came to take on a central role in the fledgling Union. Its reach and stature subsequently grew, primarily through various legal rulings, until it now shapes most policy areas across the EU.

Caution is, of course, an entirely reasonable consideration for any individual or institution, particularly in the face of novel situations, though it ought never to exclude other considerations, such as the material benefits and cultural gains, like human freedom, that can come from taking risks.

Precaution is a more confusing term, suggesting a need to act ahead of evidence being available. And to define it as a principle which, as we shall see, migrated from matters relating to the environment to now encompassing all aspects of EU policy with full legal backing, is more problematic still. Moreover, there is no universally agreed-upon definition of a 'precautionary principle', and a vast literature has emerged attempting to define, clarify or debate the use of the term. It is not the purpose of this document to revisit those early debates in detail. The reader is referred to a vast literature on these.²

Instead, we will situate and explain the emergence of the idea (as well as of a wider precautionary culture accompanying it), in their proper historical and political context, from its inception to the present,

the better to understand and critique its elevated status and far-reaching role in contemporary society.

As a foundational element of the newly constituted European Union, the precautionary principle guided policy in a period also marked by a significant disengagement of the people from the political process. This latter had accelerated in the aftermath of the end of the Cold War³, encouraging a growing sense of detached isolation and increasing insecurity.⁴

Among the defining features of this period are a growing gulf between the demos and those charged with representing them, and the rise of unaccountable bodies. By-and-large, both politicians and officials across a wide range of social and cultural institutions have come to dismiss the people as problems to be managed rather than as the source of democratic authority.⁵

Against this background, a precautionary outlook that lends authority to a class of unelected bureaucrats has come to infuse the institutions of the EU, acting as a significant brake on development. The principle was directly invoked in 135 legal acts across the EU over a 20-year period, often with paralysing consequences for the various industries concerned.⁶ And recent legislative changes will give activists even greater sway over this process.

There is little predictability or homogeneity over how the principle is applied. The requirement that any decision made through its application be open to revision is rarely applied, leading to a ratcheting-up of regulation. Hence, even its infrequent application has significant consequences, especially combined with other policy mechanisms and developments, such as the expanding role of the courts in defining and creating law.

Indeed, the precautionary principle has become a central tenet of EU law. While initially only relating to environmental policy, subsequent rulings through the Court of Justice of the European Union (CJEU) – in particular, marked by the case of Artegodan GmbH and Others v Commission of 2002,

relating to the retrospective withdrawal of marketing authorisation for a medicinal product – have made it clear that the principle is to be considered 'broader in scope' and that it 'can be defined as a general principle of Community law'.7

The precautionary principle is an invitation to those with little evidence, expertise or authority to shape and influence political debates. It achieves that by introducing supposedly ethical elements into the process of scientific, corporate, social and governmental decision making. For this, the precautionary principle relies heavily on a single assumption – that prevention is better than cure (also known as 'better safe than sorry').

Large corporations that we all depend upon have found themselves unable to defend the use of their own products and technologies in the face of well-organised and legally savvy activists. The latter claim to invoke science to protect the people. In fact, as this briefing shows, they distort evidence and look to bypass the demos entirely by working in cahoots with state institutions such as the courts.

This catastrophic loss of nerve by businesses, scientists and the state means it has been left to ordinary citizens to push back against an outlook that, however well-intentioned in its inception, has grown to undermine society.

Aside from providing an overview of the wide range of cases in which this has occurred, this report examines one specific case in detail. Environmental activists are taking the European Commission to the CJEU later this year over its decision in November 2023 to renew the licence for glyphosate – the world's most widely-used herbicide – for a period of 10 years.

The core basis for this litigation has been the conflation of a hazard classification by the World Health Organization (WHO) with risk. A hazard classification refers to the possibility of harm, in the same sense that a roof

collapse is always possible; risk, on the other hand, in the sense that most people understand it, refers to the actual probability of harm, based on actual occurrences.

The case exemplifies all that is wrong with the precautionary principle, including emotive appeals against glyphosate's original manufacturer, a focus on compensation awards in the US obtained through judicial activism, the use of data deemed unreliable by national regulatory agencies, and the actions of a few protesters backed up by just one court, which created further legal confusion.

This briefing examines the particularly insidious impact of the precautionary principle within the EU, examining its historical trajectory and explaining the conditions that allowed it to have such sway, as well as its limitations and rationale.

We then explore its consequences for democracy and science before examining recent trends and outlining the wide range of areas the precautionary principle has been applied to. We close with a detailed examination of the legal case noted above, due to reach the European courts later this year, followed by a short summary discussion.

The story we trace is of how the precautionary principle became 'an unwritten rule of law, generally recognised as superior to written rules'.8 Accordingly, there really is no limit to the remit of the precautionary principle, nor, would it seem, any popular mechanism for holding it in check. But, as we will see, challenging the precautionary principle is a task of vital importance for all those who care about Europe's future.

1 The spectre of precaution

A spectre is haunting Europe – the spectre of precaution. Unlike more dynamic parts of the world – especially Asia, but also the Americas, Australasia and even parts of Africa – Europe senses its inability to compete in terms of innovation and production. Accordingly, its governing institutions have, through the European Union, set out their stall to rationalise this predicament by promoting themselves as the arch-regulators of world affairs and commerce.

But, as one commentator has noted astutely, 'referees don't win matches'9 – a turn of phrase belatedly picked up on by the EU's own commissioner for the single market when making the case for investment, not just regulation, at a showcase event in Tallinn.¹⁰ Regardless, precaution, above all else, has become a dominant mantra and framework for organising affairs in Europe, more so than anywhere else.

Why is this? Over 20 years ago, Giandomenico Majone, a doyen of the study of European integration, lamented that the precautionary principle was 'likely to fail or to produce unanticipated and undesirable consequences', describing it as 'an idea (perhaps a state of mind) rather than a clearly defined concept, much less a guide to consistent policy-making'. He noted the principle lacked logical foundation and could distort priorities. Above all, he indicated that its interpretation by the European Commission favoured

double standards, could justify protectionist measures and risked undermining international cooperation.

A more recent briefing from the European Parliamentary Research Service cited this¹², highlighting that the precautionary principle 'could isolate the European Union', and pointing to a US publication that lambasted its use as 'arbitrary and capricious'. 13 Another American, David Vogel, a professor in the business school and political science department at Berkeley, assessed the precautionary principle to be 'a defining feature of European risk management policy ... which sharply distinguished recent European and American approaches to risk regulation'.¹⁴

While one reviewer of this work proposed that 'the concept of risk regulation is familiar to all polities'15, such platitudes fail to appreciate what has changed. Vogel was right to note that 'the EU has moved into the regulatory vanguard in many areas', though he was unconvincing in his explanation for this. 16 As we shall see, the range and remit of precaution has relentlessly expanded, as have the polities willing to countenance or incorporate its application. What matters most is to understand how and why.

2 Origins

Most genealogies of the term trace its emergence from a concept used, primarily on environmental matters, in the then West Germany of the 1970s.¹⁷ This Vorsorgeprinzip was applied to the management of forest degradation (from so-called 'acid' rain), and maritime pollution (from ship coatings and discharges). It was promoted by a fledgling Green movement, which went on to become a significant political force in Germany, and was supported by legislators alongside other regulatory initiatives, such as the 'polluter pays principle'18, which was approved by the then European Community as an environmental policy in 1973.

These origins are both insightful and important because Germany was divided, and effectively excluded from international affairs, in the aftermath of the Second World War. An ambitious individual there would rather choose to go into business, or form or join a civil-society organisation, than enter a political arena limited in scope and prestige through the postwar settlement.

This also encouraged the early rise to prominence there of a party (Die Grünen) that explicitly rejected the old Left-Right political divide and its associations, as well as promoting the significance of explicitly non-political institutions, such as central banks, constitutional courts and commissions of experts. One of the latter, the European Commission, would become one of the few avenues available for West Germany to flex its political wings in world affairs.

But beyond these arenas of fringe environmental activists, fusty lawmakers and technically minded bureaucrats, the concept of precaution had little traction. That all changed after the end of the Cold War, presaged in November 1989 by the fall of the Berlin Wall that had divided the East from the West, physically and ideologically. The Soviet Union imploded soon after, fragmenting into smaller states. In 1990, Germany was reunified as a singular entity. And, without communism to rally against, the mainstream German parties now effectively aligned with the radicals who had been promoting green politics - through their anti-military and anti-nuclear campaigns as their new agenda.

Beyond Germany, the end of the Cold War led to an existential crisis of confidence among all the other states and parties who had benefited from the pre-existing arrangements for so long. 19 What was heralded as representing the 'End of History'²⁰, was only a brief moment of triumph for the old political Right. While their Left-wing adversaries in Moscow and beyond, as well as at home, were seen to have failed, the Right also fragmented in the absence of any opposition to cohere against. This accelerated what many now understand to have been the gradual dissolution of the old Left-Right political divide.²¹

Depoliticised and increasingly directionless, leaders the world over looked for new ways to cohere their societies and legitimise their order. Risk management emerged as one of the new organising principles through which self-consciously isolated elites looked to contain their atomised societies.²² An activity that had previously been limited to engineering (including financial) was expanded it into an all-encompassing approach to arranging global and domestic affairs in a world that was becoming largely eroded of clear moral persuasions and political direction.

Pragmatism was a driving mantra of the new technocracy. This helped turn the precautionary approach, which had continued to languish in obscurity, from a focus such as the Protection of the North Sea²³ (emanating from conferences convened by the then Federal Republic of Germany), into what was heralded as an international principle, first announced at the UN Conference on Environment and Development (the so-called 'Earth Summit') held in Brazil in 1992.24

The latter stipulated that:

Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Aside from raising questions about the meaning of 'serious or irreversible' and 'cost-effective', as well as who was to be charged to assess these issues and take action, this triple-negative phrase amounts to saying: 'NOT knowing is NOT a reason for NOT acting' or, more simply, 'action without evidence is justified'.

Principle 15 was then incorporated with similar wording into other conventions, including the UN Framework Convention on Climate Change and, accordingly, the Kyoto Protocol in 1997. A widely cited alternative formulation, codified at a gathering of mostly environmental advocates and activists held at the Wingspread Conference Center in Wisconsin in 1998, stated 'measures should be taken even if some cause-and-effect relationships are not fully established', or again, effectively: 'action without evidence is justified' (in this instance, with no regard to cost).²⁵

Even before Rio, through the Maastricht Treaty, the precautionary principle had already effectively acquired a constitutional status.²⁶ But while several member states have applied this in their national legislation, one EU country alone - France, in 2005 - also incorporated a version of the principle into its Constitution.²⁷ While limited in scope – as a duty for public authorities – nevertheless, this inclusion has had a significant impact, as will become clear later.

In 2000, prompted by a European Council resolution of 1999, and triggered by the bovine spongiform encephalopathy (BSE) outbreak in the UK (aka 'mad cow disease'), as well as heated debate across the EU over the possible introduction of genetically modified organisms (GMOs) into the food chain, the European Commission issued a Communication on the Precautionary Principle, citing some of these examples, as well as other instances as precedents.²⁸

The publication of this had also been accelerated by a punishing defeat to the World Trade Organization (WTO) (mentioned 14 times in the document) over a long-standing European Community ban on the import of meat containing growth hormones, a decision that primarily impacted the US and Canada. The European Commission's own scientific experts had produced a risk assessment on the matter to the effect that 'growth hormones used according to good veterinary practice would result in no significant harm'. 29 This now encouraged the Commission to reflect on what it saw as the limits of scientific evidence.

3 Limitations

Notably, the Commission did not look to define the precautionary principle. It even proposed that 'it would be wrong to conclude that the absence of a definition has to lead to legal uncertainty' 30. But presenting a concept, with potentially universal application, so loosely, one which – lest we forget – was then later held to be 'superior to written rules', is highly problematic, particularly so for a set of institutions now increasingly adamant about the need for its members to follow 'the rule of law'.31

Of course, there is nothing inherently wrong with the application of safety or caution per se. These are sensible actions across a wide range of circumstances. But they are usually specific, based upon the application of reason, and open to revision, as well as needing to be considered in relation to other objectives. For every assertion by some that it is 'better to be safe than sorry', there has also been a recognition by others of 'nothing ventured, nothing gained'. Irrespective, it is important to understand that the need to balance risks and to facilitate decision-making under conditions of uncertainty is not what the precautionary principle, by now widelycodified, is really all about.

Initially, as noted above, the principle was invoked by fairly marginal groups as a not-so-veiled claim on decision-making in the new, post-Cold War world order. It was, in effect, a power grab by various actors who felt that their voices had been marginalized previously. These included numerous environmental activists and newly styled 'ethicists'³², who then claimed to

be speaking on behalf of, or representative of, public opinion – which they often labelled public 'values' with a view to precluding these from interrogation or debate.

We should note how, over time, that original appeal to the public has been by-passed altogether, under the guise of a new need to prioritise 'expert' authority – thereby showing how marginal and instrumental the invocation of the public was in the first place. Above all, as we shall see, 'the courts became more proactive', deviating considerably 'from their judicial role'.³³

There is still no single definition of the precautionary principle. Rather a variety of forms are used, emphasising different elements at different times according to need. And while these all encompass the same core elements ('action without evidence is justified'), they also raise the same challenges and limitations, including what 'action', what passes as 'evidence' and who decides that it be 'justified'? And as different people face different risks in different places at different times, it presumably should only ever be local and limited in scope.

Some have noted how the precautionary principle cannot be applied to itself. In effect, they ask whether the measures taken in response to any particular problem can themselves assure 'full scientific certainty' against 'serious or irreversible damage'. In addition, it ought to be clear that choosing not to act can have just as many unforeseen and potentially unfortunate consequences as the actions such measures were aimed to protect us from in the first place.

The precautionary principle can (and has) been used to justify almost anything. David Runciman, professor of politics at the University of Cambridge, noted in his 2006 book, The Politics of Good Intentions, how the then UK prime minister, Tony Blair, had, in effect, applied a version of the precautionary principle to justify going to war against Saddam Hussein in Iraq.³⁴ According to this, the risk of what we did not know about Saddam's supposed weapons of mass destruction was simply too great not to act – irrespective, as it turned out, of veracity.

As Frank Furedi, the director of MCC Brussels, has highlighted elsewhere in relation to this example, while worst-case thinking in response to terrorism and other potentially catastrophic threats appeals to the authority of superficially scientific-looking risk assessments, 'the prevailing culture of fear dictates that probabilistic-led risk management constantly competes with and often gives way to possibilistic-driven worst-case policies'. Accordingly, as Runciman noted, Blair both 'relied on expert risk assessment ... while insisting that, when it comes to global terrorism, the risks are never fully knowable'.35

Many people, of course, readily assume that 'prevention is better than cure'36, particularly in relation to medical matters (which, through the Covid pandemic, have preoccupied the recent imagination). But, as some have noted, this is far from being true.³⁷ Cure, or treating specific ailments, is both targeted – to the specific patient – and discrete, in terms of being time-bound. Prevention (or precaution), on the other hand, is necessarily all-encompassing and population-wide (we cannot know in advance who is susceptible, or to what), and potentially everlasting (we ought never let our guard down). Prevention is, accordingly, more costly and necessarily morally judgemental at its core.

In fact, prevention is only ever better than cure if what you are trying to prevent has a relatively high incidence rate and the cure you propose is known to be effective – which in many instances does not apply (aspects of which are now being exposed through one of the public inquiries into the handling of this episode).³⁸

4 Rationale

Aside from the voluminous tomes purporting to enlighten us on a proper understanding and application of the precautionary principle, the concept essentially contains just two elements. Ignoring the chaff regarding its supposedly philosophical underpinnings, technical debates over safety, and the demand for humility among scientists and policymakers (the latter most evidently disregarded by advocates of the principle who fail to apply it to their own prognoses), precaution serves to (a) project the evidence beyond that which is immediately available, and (b) invoke alternative (undemocratic) voices in the debate over a growing range of issues to which precaution is deemed to apply.

If we look at three of the foundational texts of the early 2000s that advanced the use of the precautionary principle in the UK – the inquiry into bovine spongiform encephalopathy ('mad cow disease') and its purported link to variant Creutzfeldt Jakob disease (vCJD)³⁹, the report into the safety of mobile phones⁴⁰, and a publication from the Royal Society investigating the deployment of genetically modified organisms (GMOs)⁴¹ – these all include those two core elements.

There was a consistent push to take into consideration 'unproven evidence', or even 'anecdote'. We are advised to focus on worst-case scenarios, rather than the most likely, leading to a shift from a scientific, 'What IS?', evidence-based policymaking, to a more speculative, 'What IF?' approach. 42 And there was also a consistent focus on giving a voice to the relatives of those affected (in relation to vCJD), investigative journalists (on mobile phones), and alternative 'experts' and 'ethicists' (for GMOs).

As noted previously, over the years since these inquests, any notion of a public interest has gradually been displaced by one that seeks to forefront experts and 'The Science' - for example, in relation to the recent Covid pandemic and, more prominently, climate change. Prefixing science which is an open-ended process of continuous interrogation and verification - with the definite article in this way is simply a mechanism to make it appear that debate on the matter is off-limits, in the manner of a closed or holy book.

The problem that scientists (as opposed to science) may have their own prejudices that can creep into their policy projections rarely appears to be raised. A lack of concern about such prejudices is particularly notable from many of those who have questioned the role of science in the past. 43

5 Democracy

One claim by advocates of precaution was that including other evidence and voices would serve to reinvigorate political debate. The public, who were no longer voting in elections in as large numbers as they had in the past, would appear, or be represented, on various panels and committees, or be engaged in a process of 'dialogue' with experts, scientists, and policymakers.

In fact, this approach is bad for both science and democracy. Science is not a process readily open to democratic deliberation. Rather, our impressions are ruthlessly questioned by science, irrespective of how things appear. What is required is rather the reverse – the reinvigoration of political life around principled visions of the future. From this, a more engaged discourse concerning the purpose and application of science and technology in society can be expected to emerge.

Ulrich Beck, the German sociologist who first coined the concept of a 'risk society', decried the 'optimistic fallacy' he felt existed at the heart of both science and society. 44 Today, those continuing in the same vein rail instead against the 'futility of control' - contrasting this directly with the slogan 'take back control' advocated by those who campaigned to leave the European Union at the time of the Brexit referendum in the UK.⁴⁵ We ought to have nothing to do with such counsels of despair.

The precautionary principle continues to be invoked in largely arbitrary ways in support of what increasingly seem to be pre-determined conclusions. As with its recent use by the former UK secretary of state for health and social care during the official Covid Inquiry⁴⁶, it serves to aggrandise decisionmaking (and insulate it from scrutiny) by making it appear to be based on some form of scientific rationality (while the latter is simultaneously denied). In truth, it is a debate over power between competing interests.

Another exemplar of this attitude is when the UK Joint Committee on Vaccinology and Immunology proposed that there may be no need to vaccinate children against Covid on a precautionary balance of probabilities and risks approach.⁴⁷ Despite having invoked precaution, this opposed the dominant presumptions of the time, so the government announced it would revisit the matter separately. By contrast, when concerns were expressed over the safety of the Astra-Zeneca Covid vaccine, this was withdrawn promptly from several European countries through invoking the precautionary principle.⁴⁸

In other words, precaution can be used to justify any chosen course.

6 Evolution

The first mention of 'precaution' as a basis for action by a European institution was the Commission's 1980 Decision on ozone-depleting substances. 49 But, as we have seen, it was only introduced into EU primary law as a guiding 'principle' for environment policy via Article 130(2) of the 1992 Treaty of Maastricht.⁵⁰ That was then augmented in Article 191(2) of the Lisbon Treaty of 2007, which also advised (at Article 11) that environmental protection – including protecting human health, preserving natural resources, and combatting climate change – must be integrated into all areas of policy and activity.51

In the interim, an outbreak of BSE in the UK in 1996 had led the EU to impose a ban on British beef exports that was upheld by the CJEU on grounds implicitly invoking the concept of precaution:

Where there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent.52

The precautionary principle was, accordingly, evolving beyond the claims of environmental activists, to encompass health protection and beyond. Notably, a lack of scientific evidence for any harm in at least one instance (the import of meat containing growth hormones) had led the advocate general of the European Court at the time to change the rationale for a ban from being about possible risks to health to 'the interests of the consumer in general', arguing that the latter 'need not be supported by scientific evidence'.53

The BSE episode in its turn had led to a 1997 Commission Green Paper on the General Principles of Food Law, that became the General Food Law in 2002.⁵⁴ Unusually, and unlike the earlier European Commission Communication on the Precautionary Principle⁵⁵, this document provided a definition of the principle, leading to its being referenced in several other legal acts, including the Regulation on Plant Protection Products.

According to a survey by Vos and De Smedt⁵⁶, only one other act of general application has sought to provide any definition of the precautionary principle – the 2008 Council Decision on the Protocol on the Implementation of the Alpine Convention in the field of transport (Transport Protocol).⁵⁷ More importantly though, 2002 was also a watershed moment for the increasing influence of the judiciary in precautionary decision-making.

In the *Pfizer* case, concerning the use of antibiotics in the feed of animals destined for human consumption, the Court 'adopted a new role' ruling (against evidence) that all antibiotics 'have similar characteristics and should be treated the same way', as well as effectively arguing that differences of opinion were proof of uncertainty. This 'scientification' of judicial process opened the floodgates to future rulings, all 'amounting to de facto bans', that made use of general analogies and, in most instances, ignored the official 'temporary nature of precautionary measures'.58

Cases

Applications (or invocations) of the precautionary principle have long moved on from the usual narrow set of environmental and health-related issues presented in such papers as that of the European Parliamentary Research Service⁵⁹, which largely reproduced those of a European Environment Agency advocacy report.60

- PCBs
- Halocarbons (including CFCs)
- TBT antifoulants
- Booster biocides
- Mercury
- Cigarette smoke
- Tetrachloroethylene
- DBCP
- DDT
- · Vinyl chloride
- Bisphenol A

Ecosystems

- · Resilience of ecosystems
- Great Lakes contamination
- Declining bee populations
- · Invasive alien species
- Flooding
- · Climate change
- Fisheries

Feed additives

- · BSE (mad cow disease)
- Growth horn1ones (beef)
- Antimicrobials (antibiotics) as growth promoters

Technology

- Nanotechnology
- GMOs

Pharmaceuticals

- · Contraceptive pills
- · Diethylstilbestrol (DES)

Occupational exposure

to chemicals

- Asbestos
- Beryllium

Fuel additives

- Benzene
- MTBE
- Lead

Radiation

- X-rays
- · Mobile phones
- · Nuclear accidents

from Bourguignon, 2015, p.14

It has come to be applied to an ever-widening arena of activity – from lambasting a member state for not designating a site to be a Special Protection Area⁶¹ to banning flame retardants in electrical and electronic equipment⁶², and from restricting fuel additives (by invoking conflicting opinions as proof of uncertainty)⁶³ to legislating against polymers that can come into contact with food – on the basis of analogy with the monomers that comprise them, even if these have entirely different properties.⁶⁴

One study presents a framework of all the areas it has been applied to over time:

year	00	01	02	03	04	05	06	07	80	09	10	11	12	13	14	15	16	17	18	19	Sun
Competition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	:
Industry	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	:
Regional Devel.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Transport	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Area of Freedom, Security & Justice	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Institutional issues	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	Ę
Free movement of workers	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0	1	5
Fisheries	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	2	1	0	•
External Relations	0	0	1	0	0	0	2	1	0	0	0	0	0	2	0	0	0	1	0	0	7
Consumer Protection	0	1	1	3	1	0	1	0	1	2	1	1	0	1	2	1	3	0	1	0	20
Agriculture	0	0	2	2	1	0	1	1	0	5	0	0	1	0	0	3	2	0	1	2	21
Internal market	0	1	0	4	1	0	4	0	3	3	0	0	1	1	0	1	2	0	1	1	23
Environment	1	3	2	2	0	0	4	2	5	1	1	2	1	4	2	2	0	2	0	1	35
SUM	1	5	6	13	6	0	13	5	10	11	2	3	3	10	6	8	8	9	5	5	

from Vos and De Smedt, 2020

Outside the usual areas of nature conservancy⁶⁵ and fish management, these include GMOs (with plans to apply similar restrictions to New Genetic Techniques that could significantly impact the agriculture industry)⁶⁶, but also flavourings, fruit juice and breakfast cereals⁶⁷, as well as areas not directly related to health or the environment, such as transport infrastructure,

regional policy, the financial-services industry (in the aftermath of the 2008 financial crisis), the offshore oil-and-gas industry (including fracking for shale-gas extraction), and even state aid (towards two new nuclear power reactors in Hungary).68

The number of cases may appear relatively small and to not change significantly over time. But another study for the European Commission, which only focused on 'the use of the precautionary principle in 15 EU legislative instruments', all falling under the competence of DG Environment, dissents from this view, noting that almost half of the cases under scrutiny 'lack explicit reference' to the precautionary principle, but clearly incorporated a precautionary approach, which often became more explicit later in the process.

Accordingly, searches for the term 'precautionary principle' do not 'accurately portray the actual application' of it – an important point for consideration later. What's more, for the cases they considered, 'references to the precautionary principle become more prevalent over time' as well as in some instances 'stronger over time' 69:

	Area of EU environmental legislation	Legislative acts (legislative process also reviewed)					
1	Nature and biodiversity	Birds and Habitats Directives (2009; 1992)					
2		Invasive Alien Species Regulation (2014)					
3	Chemicals	REACH (2006)					
4		POPs Regulation (2004)					
5	Water	Water Framework Directive (2000)					
6		Floods Directive (2007)					
7	Environmental assessment	Environmental Impact Assessment Directive (2003)					
8	Waste	Sewage Sludge Directive (1986)					
9		Waste Framework Directive (2008)					
10		RoHS 2 Directive (2011, as amended in 2014)					
11	Soil	Soil Thematic Strategy and withdrawn proposal for a Soil Framework Directive (2004)					
12	Industry	Seveso III Directive (2012)					
13		Industrial Emissions Directive (2010)					
14	Air	Air Quality Directive (2008)					
15	Marine & Coast	Marine Strategy Framework Directive (2008)					

from Milieu, 2017, p.7

The authors also noted the 'important role' played by the interpretations of the CJEU 'in the development of the precautionary principle in the EU, and on its application by EU institutions and member states', noting how lack of definition also means that 'the concept of risk in EU environmental legislation is interpreted differently depending on the sector in question, eg, chemicals regulation, water quality or nature conservation'.

Aside from assessing veterinarians and regulating wine production, then, there are countless examples of how application of the precautionary principle – either explicitly or implicitly – can come to impede development, including through member-state derogations.⁷⁰

At this point, we examine just one example in detail – how environmental activists, campaigning journalists and an expansive legal framework aligned to challenge the continued use of glyphosate, the world's most prevalent herbicide, which has been in use for 50 years.

8 Glyphosate

On 25 January 2024, a cluster of European environmental NGOs initiated legal proceedings against a European Commission ruling made two months earlier to extend (subject to new restrictions) approval for the use of glyphosate for a further 10 years. 71 The Commission had been obliged to take a decision on the matter in the absence of sufficient support either way among its member states.⁷²

Now, a 'Request for Internal Review' submitted by these groups gave the Commission up to 22 weeks to reply to their call for it to revoke the licence renewal, failing which they aim to launch a challenge to the ruling in the CJEU. This would be on the grounds that, in their estimation, the necessary risk assessment dossiers and data required for the authorisation were either incomplete, submitted late or failed to consider other studies and possibilities.

These latter aspects, listed in one of the press releases announcing the action, were couched in language invoking the precautionary principle, proposing, for instance, that a 2021 assessment by the European Chemicals Agency (ECHA) had 'failed to prove that glyphosate is not genotoxic' – a double-negative that is impossible to demonstrate.

Likewise, the final element of the related 'legal arguments' section points to a requirement for the 'active ingredient' (glyphosate) of a 'representative formulation' to be tested for its possible impact on human health and the environment, both alone and in combination with all of the other co-formulants – effectively, a limitless task.

On 26 June 2024, the European Commission rejected the formal request by PAN Europe and five of its member NGOs to review the 10-year re-approval of glyphosate. The NGOs plan to challenge the decision in court and have two months to file a court challenge.73

As indicated above, glyphosate – N-(phosphonomethyl) glycine – is used the world over and has become the first choice for farmers looking to eradicate weeds from their fields. Suppliers and users suggest there are no viable alternatives that deliver as good results for the cost.⁷⁴ It is also commonly used in domestic gardening, as well as to keep pavements and streets free of weeds, and for clearing railway tracks.

Glyphosate is a non-selective, or broad-spectrum, herbicide – effective on a wide variety of weeds. It is systemic – killing plants through internal absorption rather than just those parts that come into contact with it. It was also used as a crop desiccant – facilitating harvest by drying out the produce in advance – prior to this being prohibited as part of the new conditions for its continued use in the EU. Importantly, it is non-persistent - degrading relatively rapidly in most soils with a half-life of between seven and 60 days.⁷⁵

Glyphosate and its herbicidal properties were discovered in 1970 by a team of scientists working for the American agribusiness Monsanto, who then brought it to market for agricultural use in 1974 under the trade name Roundup. It was rapidly adopted and became even more popular from the late 1990s when, outside of the EU, the company introduced genetically modified (or 'Roundup Ready') crops - soybeans in 1996, corn in 1998, and subsequently canola, sugar beet, cotton and alfalfa - that were resistant to Roundup, thereby allowing weeds to be killed without impacting the yield.

While this led to an increased use of herbicides containing the active ingredient glyphosate, it also diminished the application of more persistent or restricted ones, such as atrazine and alachlor, which were often found in

run-off water (leaving aside supposedly 'natural' herbicides that can contain copper or sulphur). Today, glyphosate is the most widely used herbicide in the United States. It also accounts for one-third (or around €1.5 billion), of all pesticide sales in the EU each year. $^{76}\,$

Problems

Unfortunately, Monsanto has, for activists at least, become associated with a number of chemical-related controversies. Prior to those relating to glyphosate and genetically modified crops, these included disputes pertaining to its production of the first artificial sweetener – saccharin – but also, and more problematically, the first synthetic insecticide – DDT. Monsanto also produced, under contract to the US government, Agent Orange, a toxic defoliant widely used to reduce enemy cover in the Vietnam War.⁷⁷

Space here precludes exploring each of these. But notably, it was the longevity in the environment of a form of dioxin, a compound contained in Agent Orange, which has a half-life, dependent on location, of up to 100 years, and that can cause cancer, birth defects, and other disabilities, that led to the phasing-out of pesticides containing persistent organic pollutants (POPs). These were replaced by more short-lived and active agents, such as glyphosate.

Monsanto's exclusive patent for glyphosate ran out in 2000, allowing a multitude of companies to produce it. Monsanto itself, along with its Roundup brand, were then sold in a \$63 billion all-cash deal in 2018 to Bayer AG, the German multinational pharmaceutical and biotechnology company, which had announced its interest in doing so in 2016. This was part of a strategy to keep up with its competitors, Dow Chemical and Syngenta, which had also both recently merged with other large enterprises.

But shortly before that, in 2015, the International Agency for Research on Cancer (IARC), a branch of the World Health Organization (WHO), classified glyphosate as being 'probably carcinogenic to humans'. 78 It would seem then that Bayer failed to pay sufficient attention to the possible risks associated with their purchase.

An initial litigation case for purported harm from using Roundup was filed soon after the WHO announcement. This was then rolled into a group-action that led to a federal court ruling in July 2018 that Roundup could cause cancer – just one month after the Bayer acquisition. And, a month later, a California court made the first award for damages, now against Bayer, in the sum of almost \$290 million to a San Francisco groundskeeper diagnosed in 2014 with non-Hodgkin's lymphoma – a cancer that affects white blood cells.

Since then, as chronicled by The New York Times, the lawsuits have kept on rolling in⁷⁹. In 2020, Bayer 'agreed to a \$10 billion settlement with thousands of plaintiffs, while retaining the right to sell Roundup without having to issue a cancer warning on the herbicide and its products'. But only three years later, juries awarded a further \$2 billion in damages to a handful of the roughly 50,000 claims that weren't covered by the original settlement.

Bayer subsequently set aside an additional \$6 billion in anticipation of future cases and settlements. By 26 January 2024, it had lost the first \$2.25 billion of this at the conclusion of a case started in a Philadelphia court. Updates on its losses, from a possible 40,000 or more future cases, are now posted regularly on a Roundup verdict scorecard hosted by the Lawsuit Information Center.80

10 Controversy

A key part of the problem for Bayer lies in the 2015 IARC/WHO categorisation of glyphosate as 'probably carcinogenic to humans'. While superficially straightforward - based on 'limited' evidence in humans, as well as 'sufficient' evidence from laboratory animals (using 'pure' glyphosate) – this is above all else, and as recognised by the IARC in the final paragraph of a later press release⁸¹, a hazard classification, as opposed to a risk assessment.

As every risk analyst ought to know, hazard (as opposed to risk), is the potential effect of a process or product – what could happen – such as its being corrosive or carcinogenic; risk refers to what actually happens, taking usage into account. Everything we do exposes us to hazards. However, it is how we do things, and how often, that determines the risk.

So, for instance, stairs are a hazard, but the risk they present comes from the likelihood of injury when using them. The latter is a function of other variables, such as personal choice (speed) and external causes (conditions). Likewise, a chemical may be hazardous but pose no risk, either because we are not exposed to it, or because any dose we consume is too low to cause harm.

The distinction between hazard and risk is crucial as individuals and society can limit their exposure to (or even choose to take) certain risks. Emphasizing hazard overstates what actually happens by eliding the role of human agency. So, whether as individuals we choose to avoid stairs or as a society, we choose to ban stairs or chemicals – is a moral and political choice, not a purely scientific one.

And while publishing the outcome of its assessments in a journal called *IARC Monographs on the Evaluation of Carcinogenic Risks* to Humans (emphasis added), the agency concedes in the preamble, explaining their principles and procedures, that:

The Monographs are an exercise in evaluating cancer hazards, despite the historical presence of the word 'risks' in the title. The distinction between hazard and risk is important, and the Monographs identify cancer hazards even when risks are very low.82

In part, this points to why other prestigious scientific and regulatory bodies have often opposed the IARC line across a wide range of other cases. For instance, similar controversies have occurred over IARC classifications relating to mobile phone use, drinking hot beverages, eating red meat, and an artificial sweetener, aspartame.83

In relation to the latter, the US Food and Drug Administration (FDA) additionally noted that 'FDA scientists reviewed the scientific information included in IARC's review in 2021 when it was first made available and identified significant shortcomings in the studies on which IARC relied'.84 For glyphosate, no doubt due to the enormous costs involved, the classification has led to a more acrimonious dispute involving not just scientists, but teams of lawyers and campaigning journalists, too.

One side accuses the corporates of wielding undue influence over regulators and has released confidential internal memos held to reveal both a cavalier attitude to any concerns and efforts to influence public discussion by funding supportive studies and facilitating the preparation of articles published as independent journalism.85

The other side points to assessors appointed by the IARC who reviewed their own papers – including one assessor who worked with a group opposed to glyphosate and others who acted as consultants for law firms that would profit from any compensation awarded based on IARC classifications.⁸⁶ In addition, some of the research used did not conform to guidelines for

Good Laboratory Practice and included effects on a strain of rat known to develop tumours, even in the absence of any toxins.⁸⁷

But despite the IARC director looking to downplay challenges to its position on glyphosate, by suggesting these 'have largely originated from the agro-chemical industry and associated media outlets'88, it is the dissenting views of the US Environmental Protection Agency (EPA), European Chemicals Agency (ECHA) and European Food Safety Authority (EFSA), and many others besides, that have been far more significant.⁸⁹

These are important institutions not noted for underestimating risks. For example, as late as September 2023, and in the face of similar challenges in the US, the EPA continued to endorse its 2017 glyphosate assessment that 'the available data and weight-of-evidence clearly do not support the descriptors "carcinogenic to humans", "likely to be carcinogenic to humans", or "inadequate information to assess carcinogenic potential".90

Likewise, in the run-up to the latest decision by the EU to allow the continued use of glyphosate there, which have led to the proposed legal challenges against it, the ECHA and EFSA concluded, subsequent to a four-year assessment to screen and review thousands of published studies, that there is 'no evidence to classify glyphosate as being carcinogenic' and 'nor is it mutagenic or toxic for reproduction'.91

The point here is to note how what appears as a debate about scientific evidence is actually driven by political agendas. In addition to appeals to the precautionary principle 92, these latter have included an expansion in 2021 to the EU's Aarhus Regulation, which granted direct public access to the courts in relation to governmental decision-making on environmental matters. This, in its turn, was accelerated by protests against Roundup in France at the time of the previous review.

11 The Blaise case

In the run up to the EU approval of glyphosate in 2017 – then for a period of just five years to ensure a rapid reassessment in view of its widespread use and any evolving scientific understanding 93 – there had already been extensive campaigning by NGOs, who were aiming to obtain over a million signatories on a petition to ban glyphosate.94 The Commission, while responding that 'there are neither scientific nor legal grounds to justify a ban', nevertheless committed 'to achieving a pesticide-free future' under its Sustainable Use Directive.95

In France, over the course of 2016 and 2017, protesters calling themselves the Anti-GMO Volunteer Reapers of Ariége (a primarily agrarian French department with a small population) damaged 348 canisters containing Roundup in several stores, as well as their display cases, by daubing them with paint. 96 Similar incidents took place in three other French departments. But, whereas in the latter departments, fines were issued to the perpetrators by the courts for criminal damage, the tribunal in Foix, where the first actions had occurred, took quite a different approach when dealing with Mathieu Blaise, the protest's instigator, and his 20 accomplices.

According to a later ECJ transcript on the matter: the accused pleaded the defence of necessity and the precautionary principle, arguing that the aim of their actions had been to alert the shops concerned and their customers to the dangers associated with selling, without sufficient warnings, weed killers containing glyphosate, to prevent such sales, and to protect public health and their own health.97

As noted earlier, France had, in 2005, incorporated a version of the precautionary principle into its Constitution.

Pressed accordingly by the lawyer acting for the defendants, the court, rather than dismiss the matter, agreed to stay proceedings, and ask EU legislators for a view on whether Regulation No. 1107/2009, concerning plant protection products (PPPs), which refers to the precautionary principle 98, could be clarified or invoked to protect people.99

Specifically, the court requested a view on whether the rules were sufficient in the light of (a) lack of clarity over what the 'active substance' in a product is, (b) the regulations leaving it for industry to demonstrate absence of harm, (c) there being no requirement to explore cumulative effects of exposure, and (d) commercial formulations being different to those tested.

Understandably, both the European Parliament and European Commission ruled that these questions bore no relation to the criminal offences committed. But, as a matter invoking the interpretation and validity of EU law under Article 267 of the Treaty on the Functioning of the European Union¹⁰⁰, the European Court of Justice (ECJ) was required to adjudicate.

Rather than ruling whether a specific application of the precautionary principle is valid - cases which are, in the main, unsuccessful¹⁰¹ - the ECJ here was being asked more abstractly to rule on when the principle should apply. The advocate general in the case proposed that 'actions may ... be brought on the basis of the precautionary principle to challenge an act that is deemed too restrictive, as opposed to an act that is deemed not to be restrictive enough'.102

In this instance then, the ECJ determined, on the basis of the narrowly technical matter of whether 'the regulation complies with the precautionary principle' that there had been a 'correct application' and accordingly, no 'manifest error of assessment' in adopting it. 103 While pointing to the

responsibility of 'competent authorities' to ensure they have 'sufficient information' to assess PPP applications, it went on to dismiss each of the queries in turn.

Regardless, the instigating court in Foix then chose to release the defendants, stating that the action had been necessary to inform the public 'in the face of an actual and imminent danger'. 104 As with other instances of judicial activism pertaining to the proportionality and legitimacy of protests including, but not restricted to, environmental ones, such processes effectively allow decision-making to fall into the hands of unelected magistrates and judges who may sympathise with the activists. 105

Aside from implicitly dismissing the ruling they had requested, albeit emphasising the need expressed by the ECJ for sufficient reliable and recent data, the verdict also pointed, in language redolent of the campaigners, to the 2015 IARC hazard assessment, the ensuing Californian court ruling against Monsanto, existing restrictions on glyphosate use in French law, and an opportunistic post on Twitter by President Macron from December 2017 declaring an intention to ban glyphosate use completely in France before 2021. 106

France, Germany and Italy, with three of the largest agricultural sectors in the EU by area¹⁰⁷, all mooted banning glyphosate use entirely around this time, only to change their minds later when confronted by the economic implications of doing so. 108 Austria, the EU country that went furthest in this regard, could afford to do so given its small agricultural area¹⁰⁹, but also pulled back and notably, in the intervening period, applied for more emergency pesticide derogations, thereby allowing it to use other substances that had been banned elsewhere across Europe. 110

12 Law

MCC Brussels has previously produced a report highlighting the growing application of the 'Rule of Law' to bypass democratic decision-making across the EU.¹¹¹ This creeping *rule-by-law* has been essential in the expansive use of the precautionary principle, sidelining both scientists and the public. As noted 25 years ago in relation to other campaigners, activists are adept at playing off the different parties against one another, as well as at building superficially large alliances and networks.¹¹²

A recent EU-funded report, seeking to take stock of the effect of implementing the precautionary principle across Europe over the period 2000 to 2019, noted repeatedly how its greatest benefit is its 'flexibility', defying precise definition and allowing 'ad hoc' application according to context. The report identifies 135 legal acts that invoked the principle directly over its 19-year span, noting others who point to there likely being many more instances appealing to it implicitly, rather than explicitly. The second of the effect of implementation of the period 2000 to 2019, noted repeatedly how its greatest benefit is its 'flexibility', defying precise definition and allowing 'ad hoc' application according to context. The report identifies 135 legal acts that invoked the principle directly over its 19-year span, noting others who point to there likely being many more instances appealing to it implicitly, rather than explicitly.

In an academic law paper focusing specifically on the Blaise case, a researcher from Maastricht University noted, however, that while use of the precautionary principle may be limited, nevertheless by questioning 'the viability and validity of the whole regulatory framework of plant protection products ... it significantly influences the intensity of review of the PPP Regulation'. In other words, even if application of the principle to actual cases is infrequent, these few instances have significant consequences.

While this latter noted that 'the ruling was bound to disappoint anyone who awaited revolutionary findings from the Court, especially those who had hoped for an assessment of the glyphosate approval', the aforementioned 'flexibility' of the principle – which, lest we forget, is now treated as 'a general principle of Community law' 116 - allows campaign groups to run rings around the EU, large corporations, science and even the law itself through its constant expansion and attempted clarifications, akin to 'mission creep' in the military.

While Blaise and his accomplices could only challenge EU law by breaking it, in the hope of provoking a preliminary ruling from the ECJ¹¹⁷, their case together with another invoking the precautionary principle – relating to UK state support for nuclear power¹¹⁸ – accelerated the revision in 2021 of the Aarhus Regulation - the means by which, in 2006, EU institutions had incorporated the 1998 Aarhus Convention 'on access to information, public participation in decision-making and access to justice in environmental matters'. 119 This is what has allowed the current challenge to the Commission's extension of the glyphosate licence for a further 10 years to be more direct.

The precautionary principle, then, is rarely used alone. Rather it is its combined impact with a plethora of other legal and quasi-legal mechanisms that matters. These include general mandates such as the Polluter Pays Principle¹²⁰, the Farm to Fork Strategy¹²¹ and the European Green Deal¹²². In addition, in relation to this case, more specific rules, such as the Plant Protection Products Regulations¹²³ (including evaluation and authorisation principles, labelling requirements, and data requirements for active substances), the Sustainable Use of Pesticides Directive¹²⁴, and a host of others, continuously expand the terrain.

So, while the ECJ may have emphasised procedural correctness through its ruling, its verboseness also opened a lacuna for others to pursue their

political project to get glyphosate banned. Accordingly, while noting that the requirement that any product 'shall have no immediate or delayed harmful effect on human health' (emphasis added) may have been correctly verified according to the guidelines for the 'active ingredient' (glyphosate), this still allowed attention to be drawn to the 'long term' effects of its co-formulants, despite 50 years of use. 125

The latter are primarily assessed from data sheets submitted under yet another regulatory mechanism – REACH – for the Registration, Evaluation, Authorisation and Restriction of Chemicals¹²⁶, a service that is overstretched and was itself established as the outcome of a process driven by precautionary concerns. 127 As noted by the UK Medical Research Council Institute for Environment and Health, well before REACH came into force, the resource implications for it were both unrealistic and unrealizable. 128

Irrespective, in 2022, the chair of the EU Committee on the Environment, Public Health and Food Safety sought assurances regarding gaps in the REACH data, as well as the presumed 'long term' effects of glyphosate co-formulants, from the Commissioner for Health and Food Safety. The latter appeared to be in broad agreement indicating, as always, that the rules could be further tightened to make additional tests obligatory.¹²⁹

13 Discussion

As has often been noted in relation to regulatory, and especially precautionary evolution, this tends to go in one direction, leading to a constant ratchetingup of rules. Precaution becomes permanent, in part because:

The requirement set forth in the Commission's Communication that precautionary measures should be provisional, pending a reduction in the scientific uncertainty – is still to be seriously addressed by the EU courts. 130

One of the pioneers of risk analysis, the American engineer Chauncey Starr, had once expressed his own concern¹³¹ at what he called 'the social cost of fear reduction', noting how demands for this could arise 'from the amplification of a minor popular concern into an apocalyptic dogma'. He went on to suggest that 'some of today's hypothetical fear-based issues could develop into long-term doctrines that will be politically enduring, difficult to modify, and seriously destructive'.

We need to recognise, then, 'the socio-political – and not just (natural) scientific - nature of the precautionary principle' and further, that 'additional scientific information could never settle disputes in cases of scientific disagreement'. 132 More specifically, as a study already cited here concluded:

It is also quite apparent that the debate surrounding glyphosate is fuelled by broader societal and political questions on the future of agriculture and its impact on human health and the environment. These questions, in my view, cannot and should not be solved by a Court, but through broader societal debate in the remit of the democratic process. However, the Blaise case is certainly not the endpoint of the debate surrounding pesticides in the EU, as the political pressure for further reforms is very high and the European Green Deal proposed by the Commission promises changes. 133

In fact, the European Green Deal, and the proposals within it to cut pesticide use by up to 80 per cent, also became a matter of serious contention over the course of 2023. Introduced to the Parliament by the Commission vice-president, Frans Timmermans, in 2020, the Green Deal would, in his own words, 'be bloody hard' and would 'ask sacrifices of everyone'. 134 The pesticide reduction bill within it was driven by Sarah Weiner, an organic farmer and former celebrity chef from Austria, working primarily with the Green group of MEPs.

When her proposals were robustly defeated in the Parliament last November, Weiner accused opponents of threatening her and complained about 'a climate of misinformation', as well as the influence of 'right-wing political factions', that facilitated an organised pushback by lobbyists and industry. Leaving aside the agriculture commissioner's own critique of the Green Deal as 'not a law' but 'a political program', events across Europe, including in Brussels, at the beginning of 2024 have made clear where the real challenge comes from.

While the precautionary principle purports to protect the public and claims to engage citizens in a dialogue, what is most manifest is that it is a power grab by interested parties who are far more comfortable pursuing their agendas through the legal system than they are talking to people about their real needs. The farmers' protests that took off across almost every

European country at the start of 2024 made clear what they and the people really thought. Accusing these of being influenced by 'far right' elements is both a slur and a sign of how out of touch the bureaucrats in Brussels have become.¹³⁵

While there was no singular focus to these protests – with farming communities and their supporters complaining variously about emissions limits, fuel duties, pesticide restrictions, cheap imports, fertiliser controls and imposed cuts - what was clear was how policies driven by disconnected bureaucrats in Brussels - whether these be in relation to achieving Net Zero or imposing a Green Deal – failed to connect with those who actually produce food rather than write reports for a living. And, as is evident from the EU's own analysis of where precaution has actually been applied in law, farming and those inputting to it are among the most affected. 136

As noted by the advocate general in the Blaise case: 'A balance should be struck between two competing goals: an appropriately high level of protection for humans, animals and the environment and enabling products that can enhance agricultural productivity to be placed on the market.'137 But the precautionary principle consistently acts in a single direction.

Sadly, cases such as that of Sri Lanka may offer a useful lesson in getting that balance right. Having banned glyphosate in 2015 on environmental health grounds, as several EU countries hoped to do around the same time, legislators there were forced to repeal the decision in 2018 due to the damage this had caused.¹³⁸ That damage went beyond economic costs and the impact on farmers to eroding trust in government and, by 2022, became one of the main drivers to civil unrest and the deposing of the president there.

An obsession with safety has become one of the driving ideologies of our times, and the so-called precautionary principle has been central to instilling this in law. Aside from the economic cost of taking such an

unbalanced approach to social and scientific challenges, this imposes restrictions on people and development, too. After 30 years, some still seek greater clarity regarding the principle's definition and application. 139 But we, along with a growing number of others¹⁴⁰, call for the EU to abandon the precautionary principle entirely.

14 Conclusion

Europe is caught in a destructive spiral. Faced with enormous political, economic and military challenges, the response of the EU elite is to attempt to manage the risks of political instability, economic collapse or military competition. But, as we have seen, the ethos of risk management, underpinned by the precautionary principle, tends to make the European Union less able to respond to novel circumstances. The risk-management ethos makes it harder to meet the challenges of the present moment.

The destructiveness of the spiral lies in the fact that the EU's precautionary approach makes the problems it faces more acute. This increases the sense of danger facing European elites, which in turn encourages them to cling tighter to the status quo, managing the risk of change. In other words, EU elites have become prisoners of their own precautionary ideology. They are now helpless to address the challenges we face.

It is hard to advocate for a wholesale change in the way the EU approaches all issues of policymaking. But this is what we must do. The default, precautionary approach which underpins EU legal systems, policymaking, planning and politics must be jettisoned.

Doing so will raise a number of questions – even from those who are as sceptical as this report is about the anti-innovation ideology which has captured EU institutions. What is an acceptable amount of risk? What risks should we be most concerned about? Is risk always bad, or sometimes necessary and good? Can we trust individuals, organisations or corporations to make the right judgements about risk? What is Europe's future – more of the same, or a decisive break?

But these questions are necessary questions for a democratic society to answer. At present, the precautionary ideology assumes only one set of answers to these questions is possible.

Breaking the stranglehold that the precautionary principle has on Europe's policymaking elites is a necessary first step to restarting a discussion about the future of Europe. It is also a necessary first step to reviving – politically, economically, and culturally - Europe, which currently sits enchained by the EU's ideology of precaution.

The precautionary principle has become a preventative principle – it prevents Europe from confronting the future with clear eyes. We must abandon it.

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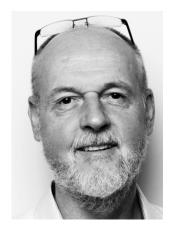
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About the author

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Bill is Visiting Professor to MCC Brussels and Chair of Risk and Security in International Relations at the University of Bath. He previously held posts in British Columbia, Canada and at NTU in Singapore, as well as at the Defence Academy of the United Kingdom and in the War Studies Group of King's College, London. Since 2014 Bill has also been a Visiting Professor to the China Executive Leadership Academy Pudong, one of China's top-level Party schools.

In 2017, following in the steps of former US Secretary for Homeland Security Michael Chertoff and the UK Minister of State for Universities and Science David Willetts, he became the 8th person and first alumnus to give the Vincent Briscoe Annual Security Lecture at Imperial College London. French by origin, he has lived in the UK for much of his life and currently resides in Oxford with his wife and three young sons, two of whom sing for the Choir of Magdalen College there. He views the establishment of MCC in Brussels as essential for shaking-up institutional complacency, both there and further afield.

About MCC Brussels

At a time of unprecedented political polarisation, MCC Brussels is committed to providing a home for genuine policy deliberation and an in-depth exploration of the issues of our time.

MCC Brussels is committed to asking the hard questions and working with people of goodwill from all persuasions to find solutions to our most pressing problems. An initiative of MCC (Mathias Corvinus Collegium), the leading Hungarian educational forum, MCC Brussels was founded in the autumn of 2022 to make a case for celebrating true diversity of thought, diversity of views, and the diversity of European cultures and their values.



Something is holding Europe back.

Europe has incredible economic and cultural potential.

Not only can we draw on a long tradition of innovation, risk-taking, and experimentation – from the Ancient World through the Renaissance, the Scientific and Industrial revolutions, the Age of Enlightenment and the period of mass industrialisation – but Europe is also home to world-leading companies and scientific institutions.

But today, the mood, and often the reality, of the continent, is pessimistic. New innovations struggle to gain a foothold, risk-taking is frowned upon, and a sense of sclerosis has set in. Few would use the words bold, ambitious, or innovative to describe European companies, academics or institutions.

This report argues that the underlying problem is an attitude of precaution. This is the attitude of "better safe than sorry". In policymaking circles, this is known as the "precautionary principle". This principle proposes that no effort is too great to ward off the risk of danger – no matter how small that risk may be.

The result – from fields as diverse as nuclear policy to public security, farming to town planning – is that technocrats spend an inordinate amount of time demanding and implementing risk-reduction measures to avoid unforeseen consequences.

Europe is drowning not just in paperwork but in risk-aversion.

Breaking the stranglehold that the precautionary principle has on Europe's policymaking elites is a necessary first step to reviving – politically, economically, and culturally – Europe, which currently sits enchained by the EU's ideology of precaution.

The precautionary principle has become a preventative principle. This report argues that we must abandon it.

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