European Policy
Innovation Council

The Hidden Cost of EU Regulation:

Why Policy Design Matters for Growth, Competitiveness, and Investment

European Policy Innovation Council

Published by the European Policy Innovation Council (EPIC)

The views expressed herein are solely those of the author(s) and do not necessarily reflect the official positions of EPIC.

EPIC is an independent Brussels-based think tank dedicated to connecting research with policy. Its mission is to strengthen Europe's competitiveness through forward-looking, evidence-based dialogue between academics, policymakers, and industry leaders. The Draghi Observatory & Implementation Index, launched by EPIC in September 2025, follows up on the implementation of the Report on the Future of European Competitiveness, tracking reforms and identifying new ideas to sustain Europe's growth model. Our Index has been widely covered by global media, including the Financial Times, The Economist, and Politico, and has quickly become the reference point for evaluating the progress of reforms across the EU.

EPIC is registered in Brussels, Belgium, as a nonprofit (BE1016989669) and under the EU Transparency Register (REG 683253994641-35). All opinions and publications represent the views of their respective authors and do not necessarily reflect the positions of EPIC or any affiliated organizations or individuals.

© European Policy Innovation Council, 2026

Editor: Dr. Antonios Nestoras

Page layout: Altais

EPIC accepts no responsibility for the persistence or accuracy of URLs for external or third-party websites referenced in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Table of Contents

LIST OF ABBREVIATIONS 4

KEY INSIGHTS 5

EXECUTIVE SUMMARY 7

INTRODUCTION 8

ANALYSIS OF KEY POLICY INITIATIVES 11

Case 1: The MERCOSUR Trade Agreement 11

A Strategic Opportunity with Distributional Tensions 12

Case 2: The Transition of the Automotive Sector 15

The automotive transition 15

Supply-Chain Dependencies and Strategic Vulnerabilities 16

Competitiveness and Asymmetric Structural Risks 18

Case 3: The EU's Common Agricultural Policy (CAP) 19

From Price Support to Layered Objectives 19

Environmental Performance and Compliance Burden 21

Reactive Use of CAP and Implications for Better Regulation 22

PROSPECTIVE REGULATORY CHALLENGES IN THE CURRENT COMMISSION WORK PROGRAMME 23

The Tobacco Products Directive 24

AI Regulations 34

Packaging and Packaging Waste Regulation (PPWR) 36

Carbon Border Adjustment Mechanism (CBAM) 38

Biotechnology and Novel Foods 40

The Cost of Regulatory Accumulation 42

KEY LEARNINGS FOR FUTURE POLICY DESIGN 45

CONCLUSION 48

List of Abbreviations

AI	Artificial Intelligence
CAGR	Cumulative Annual Growth Rate
CAP	Common Agricultural Policy
CBAM	Carbon Border Adjustment Mechanism
COP	Conference of the Parties
ECJ	European Court of Justice
EMCS	Excise Movement and Control System
EU	European Union
EV	Electric Vehicle
FCTC	WHO Framework Convention on Tobacco Control
GDP	Gross Domestic Product
HTP	Heated Tobacco Product
IMF	International Monetary Fund
JATC	Joint Action on Tobacco Control
OECD	Organisation for Economic Co-operation and Development
OLAF	European Anti-Fraud Office
PPWR	Packaging and Packaging Waste Regulation
SME	Small and Medium-sized Enterprise
TPD	Tobacco Products Directive
TTD	Tobacco Taxation Directive
WHO	World Health Organization

Key Insights

1. **Existing flagship policies already impose annual losses of around 0.35% of EU GDP.** The combined frictions from MERCOSUR, the automotive phase-out, and CAP generate around €63 billion in annual losses equivalent to 0.35% of EU GDP.
2. **The EU continues to advance regulatory agendas of considerable scope without adequate economic calibration, stakeholder alignment, or proportionality testing.** The resulting costs accumulate across the economy simultaneously.
3. **Upcoming regulations risk adding additional €159 billion in annual GDP losses and exposing 419,000 jobs (2026-2030).** Under restrictive baselines, the next regulatory wave, TPD, AI, PPWR, CBAM, and Biotechnology/ Novel Foods, is projected to impose €159 billion in foregone GDP per year and expose 419,000 jobs annually over 2026-2030.
4. **Better-designed policies would limit the economic impact of upcoming regulations to €33 billion in annual GDP losses and 178,000 jobs at risk, avoiding most of the projected damage.** In total, a proportionate, sequenced, and evidence-based regulatory approach would save €125 billion in GDP and 241,000 jobs each year over 2026-2030.
5. **TPD is the biggest avoidable economic shock. In the restrictive scenario, the estimate is a €48 billion annual GDP loss, including a €24 billion annual loss in tax revenue.** Under a calibrated, risk-differentiated design, the scenario shifts to an estimated €32 billion annual GDP gain, including around €16 billion in tax revenue, alongside improved health outcomes.
6. **AI rules reduce the share of potential productivity gains by 38%.** The current framework is associated with €24 billion in annual average GDP losses and 62,000 jobs at risk. A more proportionate framework could reduce losses by €12 billion annually.
7. **Packaging rules shift more than €42 billion per year away from productive investment.** The PPWR costs €42 billion in annual average GDP and affects 112,000 jobs on average per year. A phased implementation reduces the damage by more than half.
8. **CBAM's economic costs can be reduced by 22% without diluting climate ambitions.** CBAM results in €44 billion GDP losses and 118,000 jobs at risk on average per year; a more proportionate implementation would allow about €9.5 billion more output per year and reduce job losses by around 25,500 jobs annually.
9. **Slow Biotechnology and Novel Food approvals cost the EU €1.6 billion in annual average GDP.** Regulatory delays reduce the annual average GDP by

€1.6 billion and forego 6,760 jobs on average per year. Faster approval reduces losses by about one-third.

10. **Towards a Stability-by-Design governance.** A "Stability-by-Design" governance stance systematically embeds regulatory predictability, ex-ante distributional alignment, differentiated instruments tailored to structural heterogeneity, and coherent policy sequencing from the outset, delivering predictable regulatory frameworks that restore competitiveness without diluting core policy objectives.

Executive summary

The European Union (EU) continues to advance regulatory agendas of considerable scope without adequate economic calibration, stakeholder alignment, or proportionality testing, and the resulting costs accumulate across the economy simultaneously. In recent years, policy uncertainty has emerged as a structural feature of EU governance, with ambitious targets in the industrial and climate domains advanced without reconciling competing stakeholder interests or rigorously verifying their economic sustainability and long-term feasibility. When non-economic priorities consistently override industrial competitiveness, the outcome is a costly stop-and-go regulatory environment, characterised by delayed investment, heightened institutional conflict, and eroding public trust in policymaking.

This report shows how weaknesses in EU policymaking translate into substantial economic costs that ultimately undermine core EU objectives. Across three cases—the EU-MERCOSUR trade agreement, the planned phase-out of combustion-engine cars, and the Common Agricultural Policy (CAP)—the same pattern emerges: policy design that does not adequately account for the structure of the markets it seeks to transform, their dependencies with other sectors, or the broader, compounded economic and social impacts that follow. These three files are associated with an estimated frictional cost of around €63 billion per year, equivalent to 0.35% of EU gross domestic product (GDP), undermining competitiveness and eroding the EU's growth potential.

Upcoming initiatives exhibit the same trajectory. Several initiatives in the Commission's 2026 Work Programme are advancing without a full assessment of how the measures interact, what the combined burden looks like, or whether implementation will remain coherent across Member States. Under restrictive baseline designs, five upcoming regulations – Tobacco Products Directive (TPD3), Artificial Intelligence (AI) regulations, Packaging and Packaging Waste Regulation (PPWR), Carbon Border Adjustment Mechanism (CBAM), Biotechnology and Novel Foods – are projected to generate additional annual GDP losses of €159 billion and put 419,000 jobs at risk on average per year between 2026 and 2030.

Most of this damage is avoidable. More proportionate, better-sequenced, and evidence-based regulations can reduce the projected annual losses to around €33 billion and about 178,000 jobs at risk, which implies a recovery of roughly €125 billion in GDP and 241,000 jobs each year over 2026-2030,

alongside around €28 billion in additional annual investment. In many cases, the difference is decisive. For TPD3, moving from a restrictive to a calibrated, risk-differentiated design shifts the estimated GDP impact from a loss of roughly €48 billion per year to a net gain of €32 billion per year.

The EU's central challenge lies in the sequencing, proportionality, and cumulative effects of its regulatory agenda. A Stability-by-Design governance approach would address this by involving key stakeholders early in the process, grounding decisions in robust evidence to identify workable pathways, and tailoring rules to the specific risk profiles and characteristics of different sectors. Such an approach enhances predictability, improves implementation, and reduces unnecessary pressure on competitiveness, while reinforcing the EU's credibility as a source of high-quality, reliable regulation.

Introduction

Global trade has become more uncertain in recent years. Tariffs, non-tariff barriers, and geopolitical tensions now shape the international economic landscape. The International Monetary Fund (IMF) noted in its October 2025 World Economic Outlook that trade policy uncertainty has risen sharply since 2020. This rise in uncertainty is associated with weaker economic growth (around 0.5–1 percentage point less GDP growth per year) because supply chains are disrupted and costs rise, which then feeds into higher prices and weaker demand.[1]

The EU faces these external pressures from a position of structural and economic weakness. Since the early 2000, average productivity growth has been low (around 0.6% per year, compared with 0.8% in the U.S.).[2] Public debt has risen, reaching about 82% of GDP by 2025,[3] which limits how much governments can spend when new shocks hit. At the same time, spending pressures are rising: defence expenditures are projected to exceed €400 billion by 2030,[4] and ageing populations are expected to add roughly 2% of GDP per year to pension costs by 2040.[5] With tax burdens already around 40% of GDP,[6]

1 IMF (2025). World Economic Outlook.
2 Draghi (2024). The future of European competitiveness.
3 Eurostat (2026). Euro Indicators - Third quarter of 2025.
4 European Council (2026). EU defence in numbers.
5 OECD (2025). Pensions at a Glance 2025.
6 Eurostat (2025). EU and euro area tax-to-GDP ratio up in 2024.

there is only limited room to raise revenues further without putting the EU's competitiveness at risk. In this vein, the Draghi Report warns that, without accelerated growth, fiscal pressures will intensify, investment will remain weak, and the gap with global innovation leaders will widen. However, many of his recommendations have not been implemented.[7]

A wide range of analyses points in the same direction. The IMF argues that overly burdensome regulation makes it harder for firms to scale across borders and deters foreign direct investment (FDI).[8] It therefore calls for more regulatory restraint to bolster the EU's technological frontier. The Organisation for Economic Co-operation and Development (OECD) makes a similar point from an innovation perspective, warning that heavy-handed intervention can slow the EU's progress in digital and green technologies.[9] Draghi explicitly calls for maximum competitive pressure through open trade and competition policy, and cautions that repeated layers of regulation can absorb resources the EU needs for defence, infrastructure, and human capital.[10]

As the world's largest integrated trade bloc, the EU still has considerable leverage to shape its economic future. Yet, three cases – the EU-MERCOSUR trade agreement, automotive phase-out, and CAP – illustrate how policy misalignments materialise before future economic impacts are adequately assessed.

- The EU–MERCOSUR case exposes a two-fold structural weakness in the EU policy process: a reliance on outdated distributional assessments and the late incorporation of these already obsolete findings into the negotiation process. This sequencing failure contributed to the adoption of ad hoc agricultural compensatory measures, including a proposed €45 billion expansion of the CAP, rather than a coherent adjustment strategy embedded from the outset. Moreover, legal uncertainty surrounding the agreement's structure is associated with an estimated €4.8–9.9 billion in delayed investments and a further €1.6–3.3 billion in investments foregone entirely.
- In the automotive file, the 2035 zero-emission mandate was adopted before economic consequences for the EU's automotive sector were fully assessed. The policy put climate targets ahead of an industry employing 13.8 million workers and generating a €26.6 billion trade surplus. Early impact assessments projected employment losses of up to 64.5% under a pure electric vehicle (EV) scenario. Since the launch of Fit for 55 in 2021, the sector has been losing around €30 billion in economic value annually, alongside €6.6 billion in foregone investment each year.

7 Draghi (2024). The future of European competitiveness.
8 Arnold et al. (2025). Lifting Binding Constraints on Growth in Europe: Actionable Priorities to Deepen the Single Market. IMF Working Paper.
9 OECD (2025). Better Regulation Practices across the European Union 2025.
10 Draghi (2024). The future of European competitiveness.

- In the CAP, environmental and sustainability objectives prove incompatible with the sector's structural diversity, where 1% of farms control 27% of land. Allocative inefficiencies generate an estimated €27 billion in annual economic losses (€626 billion cumulatively since 2003) and a system that relies on reactive fiscal compensation rather than effective reform.

Taken together, these three cases imply annual losses in the order of 0.35% of EU GDP.

The EU is at risk of repeating the same governance failures in upcoming initiatives, including TPD3, AI regulation, PPWR, CBAM, and Biotechnology and Novel Foods. Under restrictive baseline designs, the projected annual impact over 2026–2030 is around €159 billion in GDP losses, 419,000 jobs at risk, and a €36 billion investment shortfall. By contrast, if these files are designed and rolled out in a more proportionate, predictable, and better-sequenced way, most of that damage is avoidable: the modelled difference is about €125 billion in GDP, 241,000 jobs, and €28 billion in investment per year relative to a restrictive baseline.

Specifically, TPD3 is estimated to generate €48 billion in annual losses, including €24 billion in lost consumption-tax revenue (VAT and excise). Under a calibrated, risk-differentiated framework, the estimate changes to a €32 billion annual net gain, including €16 billion in tax revenue. The difference is driven by retaining domestic value chains and enabling switching to lower-risk alternatives. In the other files, design choices mainly change the size of the adjustment cost: a phased roll-out cuts PPWR's GDP impact by 57%; more proportionate AI rules recover about €12 billion per year; a better-calibrated CBAM price path reduces GDP losses by 22%; and faster Biotechnology and Novel-Food approvals reduce the estimated economic damage by about one-third.

The following sections examine three core cases, MERCOSUR, the automotive phase-out, and the CAP, followed by the prospective regulatory agenda (TPD3, AI, PPWR, CBAM, Biotechnology and Novel Foods). Each case illustrates the same structural message: the EU's challenge is the absence of Stability-by-Design, a governance architecture that aligns objectives with economic reality, integrates cumulative impacts, sequences transitions, and embeds foresight before mandates harden.

Analysis of Key Policy Initiatives

The three cases examined in this section, the EU–MERCOSUR trade agreement, the automotive sector transition, and the CAP, point to the same implementation gap. Ambitious policies were agreed upon before their economic and practical consequences were fully tested and addressed. As a result, predictable conflicts surfaced, triggering pushback, uncertainty, and in some cases revisions or delays. Taken together, the cases not only highlight current shortcomings but also serve as a blueprint for embedding better regulation and stronger foresight in the EU's future policymaking approach.

Across the three files, the implied annual frictional cost is about €63 billion, or roughly 0.35% of EU GDP. These appear through late fiscal compensation, missed gains from delayed or contested implementation, persistent inefficiencies in how support is allocated, and the administrative burden that accumulates as rules are layered over time. Specifically, the EU–MERCOSUR trade agreement is associated with €4.85 billion in investments delayed and €1.65 billion in investments lost each year; the automotive transition has reduced GVA by around €30 billion per year since the Fit for 55 announcement. The CAP produces an annual average GDP loss of €27 billion from allocative inefficiencies. These costs underscore how systematic policy design misalignments impose persistent economic costs on the EU.

Case 1: The MERCOSUR Trade Agreement

The EU–MERCOSUR trade agreement illustrates how a strategic initiative can become costly when its distributional effects are neither updated nor integrated into policy design from the outset. The evidence base underpinning the negotiations is more than fifteen years old and no longer reflects the current structure of the agricultural sector, which remains central to Europe's socioeconomic model, supporting food security, rural livelihoods, territorial cohesion, and environmental stewardship.

Unsurprisingly, negotiations have stretched over nearly twenty-five years. Reconciling the agreement's potential gains with concentrated losses in sectors

such as agriculture requires timely, evidence-based calibration. Instead, the process has been hindered by two structural weaknesses: reliance on outdated distributional assessments and the late incorporation of these already obsolete findings. This sequencing failure contributed to the emergence of ad hoc compensatory measures—including a proposed €45 billion expansion of the CAP, rather than a coherent adjustment strategy embedded from the start.

The result has been a negotiation process weighed down by late-stage compensation, institutional conflict, and ultimately the European Parliament's referral of the agreement to the European Court of Justice. Although the Interim Trade Agreement is scheduled to apply from 1 May, the pending ECJ opinion is likely to delay investment decisions by 12–24 months, associated with an estimated €4.85–9.89 billion in deferred investment and €1.65–3.3 billion in investment lost.

A Strategic Opportunity with Distributional Tensions

On paper, the EU-MERCOSUR agreement has a clear strategic value. It would open a large market and deepen ties with a major South American bloc. It would also cut tariffs on most industrial goods from the EU, in sectors where it is still strong, such as machinery, chemicals, pharmaceuticals, and cars.[11,12] Standard trade models therefore tend to find small gains for the EU as a whole, typically a fraction of a percentage point of GDP per year.[13,14]

However, much of the quantitative evidence base that has shaped the debate is now too old to carry the weight placed on it. Several core impact assessments are more than 15 years old. They were built for a different economic setting and do not capture today's trade elasticities, technology, supply-chain fragilities, or the geopolitical competition that has become central to the EU's strategy in Latin America. This is particularly important when considering the EU's economic resilience, strategic raw materials, and competition with China in Latin America. When the numbers are outdated, the policy debate becomes easier to polarise, as both sides can claim that the modelling is not fit for purpose.

---

11 European Commission (n.a.). Factsheet: EU-Mercosur partnership agreement.

12 Chambers and Partners (2025). EU-MERCOSUR agreement on trade in goods securing long-term market access.

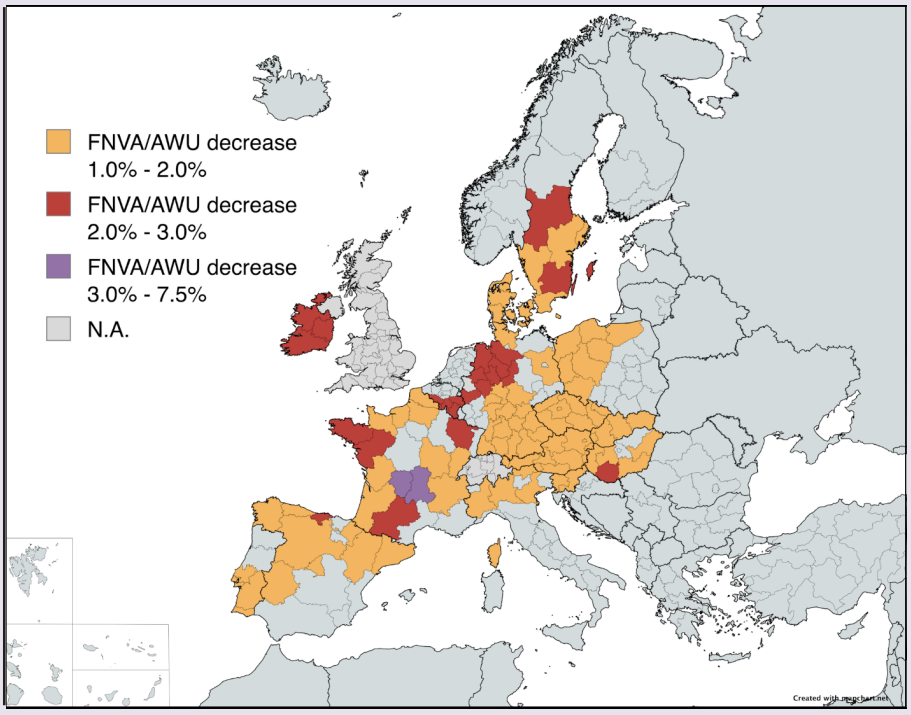
13 Baltensperger and Dadush (2019). The European Union-Mercosur Free Trade Agreement: Prospects and risks. Bruegel Policy Contribution, No.2019/11.

14 Boyer and Schuschny (2010). Quantitative assessment of a free trade agreement between MERCOSUR and the European Union. Estudios estadisticos y prospectivos.

While aggregate economic gains were estimated to be positive, the EU's Impact Assessment also pointed to concentrated losses in agriculture. Under a high-liberalisation scenario, EU agricultural income was estimated to fall by about 1.6% on average, with much larger losses in specific Member States and regions: 2–3% in major beef-producing countries (Ireland, Belgium, Denmark, Luxembourg) and 3%–7.5% in exposed regions of France (see Graph 1). Other Member States (e.g., Poland, the Czech Republic, Austria) faced more moderate declines of 1–2%.[15]

Employment effects in agriculture were also expected. The same assessment projected about a 0.4% contraction in agricultural labour input (roughly 33,000 annual work units), mainly through farm exit. These patterns are consistent with MERCOSUR's comparative advantage in agriculture: more competition, downward pressure on EU farm prices, and faster structural adjustment. Yet, the same unevenness appeared beyond farming, as one study reports total exports rising by 0.6% in Spain but falling by 0.04% in Slovakia.[16]

Graph 1: Decline of farm net value added in case of strongest MERCOSUR liberalisation scenario



Source: *European Commission*

15 Burrell, A. et al. (2012). Potential EU-Mercosur free trade agreement: Impact assessment.

16 Timini and Viani (2022). A highway across the Atlantic? Trade and welfare effects of the EU-Mercosur agreement. International Economics 169, 291-308.

Concentrated sectoral losses made conflict predictable. If gains are spread thinly across millions of consumers and firms, and losses hit particular regions and sectors hard, politics will revolve around the losers, unless credible adjustments implemented early on. Instead of integrating the predictable agricultural tensions early, through sequencing, safeguards, and a clear adjustment plan, the EU largely left them to the end. As a result, the fix arrived late and looked improvised.

In early 2026, the Commission proposed a roughly €45 billion expansion of CAP support and added late safeguards (tariff–rate quotas for sensitive products and additional non–tariff measures such as stricter pesticide standards on imported goods).[17, 18, 19] These instruments can soften sectoral losses, but arriving late, they mainly raise fiscal costs, weaken credibility, and prolong uncertainty for firms planning investments.

Institutional conflict then compounded economic costs. In January 2026, the European Parliament voted 334 to 324 to refer the agreement to the ECJ. Even if the Interim Trade Agreement begins applying from 1 May, the ECJ's final view still determines the legal endpoint, and firms are likely to treat that interval as a 'wait–and–see' period for large, sunk investments.[20, 21, 22, 23] Illustratively, if firms defer commitments while the ECJ opinion is outstanding, a twelve–month extension of uncertainty is associated with around €4.95 billions of investments being delayed and about €1.65 billion being lost, rising to €9.89 billion delayed and €3.30 billion lost over 24 months.[24]

17 Buenos Aires Times (2026). EU concessions: What EU gave farmers for MERCOSUR deal backing.

18 EURACTIV (2026). Mercosur: Brussels woos farm ministers with reciprocity, tariff con cessions.

19 EURACTIV (2026). EU countries endorse Mercosur trade deal, against France's wish.

20 HowTheyVote.eu (2026). Request for opinion from the Court of Justice on the compati bility with the Treaties of the proposed EU-Mercosur Partnership Agreement (EMPA) and Interim Trade Agreement (ITA).

21 Euronews (2026). European Parliament freezes Mercosur deal, referring it to EU Court of Justice.

22 Handelsblatt (2026). Europaparlament bremst Mercosur-Deal aus.

23 Climate Action Network Europe (2026). European Commission sidelines Member States by splitting controversial EU-Mercosur deal.

24 Given estimates that each additional month of delay during 2026 amount to €4.4 billion in foregone GDP (Erixon et al. (2026). Time is money: The cost of delaying the ratification of the EU-MERCOSUR Trade Agreement. EPICE Policy Brief No. 01/2026), an EU business investment rate of 22.3% (Eurostat (2026). Quarterly sector accounts – non-financial corporations), an uncertainty delay parameter of 0.42 p.p. (EIB (2024). The effect of uncertainty on investment. EIB Working Paper 2024/02), investment determent parameter of 0.33 (Handley and Limao (2017). Policy uncertainty, trade, and welfare: Theory and evidence for China and the United States. American Economic Review 107(9)).

Overall, the EU–MERCOSUR agreement highlights a systematic failure to align economic evidence with policy design. The process created a long period of policy ambiguity. Negotiations dragged on long enough for parts of the evidence base to become outdated, predictable tensions were addressed late through add–ons, and last–minute safeguards were used as a substitute for early sequencing. That approach raised fiscal and administrative complexity and, crucially, kept firms uncertain about what the final rules would be and when they would be implemented. As institutional conflict escalated into legal proceedings, the policy path became harder to plan around, sustaining an uncertainty premium that encourages firms to defer cross–border projects and other irreversible commitments.

Case 2: The Transition of the Automotive Sector

The EU's automotive industry employs 13.8 million workers (6.1% of all EU jobs and 8.5% of manufacturing employment) and ran a €26.6 billion trade surplus in 2023.[25, 26, 27] As the Draghi Report (2024) observes, the EU's ambitious climate targets offer decarbonisation opportunities only if matched by coherent policy coordination, otherwise risking outcomes detrimental to competitiveness and growth. The 2023 Commission proposal for a 2035 combustion–engine phase–out aimed at 100% zero–emission new cars but ignored supply–chain reconfiguration, with over 60% of employment in suppliers tied to the internal combustion engine (ICE). Germany alone faces 215,000 job losses by 2030 under a pure electric vehicle (EV) scenario.[28]

The automotive transition

The European Commission's 2023 proposal for a 2035 combustion–engine phase–out, targeting 100% zero–emission new cars, paid limited attention to supply–chain reconfiguration. Supplier–side employment is particularly exposed. Over 60% of automotive–chain jobs are located in component suppliers, many of which specialise in ICE systems and have no direct equivalent in EVs. [29]

[25] Roland Berger (2024). European Independent Automotive Aftermarket Panorama.
[26] European Commission (n.a.). Automotive industry.
[27] CLEPA (2024). CLEPA Data Digest #14 - EU Suppliers' Trade Surplus Under Growing Pressure.
[28] Ifo Zentrum für Industrieökonomik und neue Technologien (2021). Auswirkungen der vermehrten Produktion elektrisch betriebener Pkw auf die Beschäftigung in Deutsch land.
[29] Roland Berger (2024). European Independent Automotive Aftermarket Panorama.

An EV-transition impact assessment (2020–2040) quantifies the stakes. In a "pure EV" scenario (60% sector-wide CO2 cuts by 2030, followed by a complete phase-out of combustion engines), EU automotive employment is projected to fall by 64.5% by 2040 compared with 2020.[30] Other research points in the same direction: a rising share of EVs in car exports is linked to job losses in ICE-focused activities, especially over longer horizons.[31]

A different route looks less disruptive. Under a mixed-technology pathway (meeting a 50% CO2 cut by 2030 using hybrids, battery-electric vehicles, e-fuels, and biofuels), employment is estimated to rise by 18.9% by 2040 compared with 2020.[32] This contrast highlights the common pattern of EU policymaking: timelines are tight and run ahead of what technology, factories, and suppliers can realistically deliver.

In late 2025, the EU softened the approach, shifting from an outright ban to a 90% fleet-emissions reduction and allowing options such as e-fuels, biofuels, and lower-carbon materials.[33, 34] The change acknowledged industrial constraints. But it came after many firms had already committed to investments that are difficult to reverse.[35]

Supply-Chain Dependencies and Strategic Vulnerabilities

The shift towards EVs increases the EU's exposure to critical raw materials such as lithium, nickel, cobalt, and rare earths. China dominates global refining capacity for many of these materials, controlling over half of primary-material processing and a large share of battery-grade intermediates.[36] The EU's Battery Booster Package mobilises approximately €1.8 billion from the EU Innovation Fund to incentivise carmakers to reshore battery-value-chain activities,[37] but this does not resolve the underlying constraint of secure, affordable access to raw-material inputs.

30 Strategy& (2021). Electric Vehicle Transition Assessment Report 2020 - 2040.
31 Celasun et al. (2023). Cars and the Green Transition: Challenges and Opportunities. IMF Working Paper.
32 Strategy& (2021). Electric Vehicle Transition Assessment Report 2020 - 2040.
33 Reuters (2025). EU drops 2035 combustion engine ban as global EV shift faces reset.
34 Euronews (2025). EU carmakers to comply with 90% emissions reduction by 2035 as full combustion engine ban scrapped.
35 Luxembourg Times (2025). What EU's rowback on combustion engine ban means for drivers and carmakers.
36 International Energy Agency (2023). Clean energy supply chain vulnerabilities.
37 European Battery Alliance (2025). EU Battery Booster Package sends clear signal for battery manufacturing in Europe.

> The shift towards EVs increases the EU's exposure to critical raw materials such as lithium, nickel, cobalt, and rare earths.

Uncertainty over the EU–MERCOSUR trade agreement adds to this vulnerability. South America holds a large share of global lithium and nickel reserves. Yet long negotiations and legal uncertainty have created room for Chinese firms to expand into mining and battery-related projects across the region. The German Marshall Fund and Investment-Monitor show a rapidly increasing Chinese FDI in Latin America's automobile-supply and logistics sectors, which are likely to crowd out EU project-scale financing and limit diversification options. On a 2020–2025 horizon, Chinese FDI in Latin American automotive-related sectors was estimated to exceed €10 billion, while EU-led initiatives remain in the low-to-mid single-digit billion. This gap is likely to make it harder for the EU to diversify its supply options.[38, 39]

The EU–MERCOSUR trade agreement establishes differentiated tariff-liberalisation schedules for combustion and electric/hybrid vehicles, reflecting divergent regional transition speeds. For combustion vehicles (Category 15V), the schedule delays full duty-free access until Year 15, with an initial six-year protection period followed by a gradual reduction (Table 1). By contrast, electric and hybrid vehicles receive an immediate 28.6% tariff cut on entry into force, phasing down to duty-free status by Year 18. These schedules acknowledge that MERCOSUR's electrification pace lags that of the EU: charging infrastructure remains patchy, and internal-combustion vehicles still dominate the regional fleet.[40]

Combustion-engine exports therefore represent a short-term external demand buffer for EU manufacturers, helping to smooth domestic-market demand shocks during the restructuring window. However, the accelerated EU-level

38 German Marshall Fund (2026). China's Latin America Strategy: A Collision Course with the US?

39 RMI (2023). The EV battery supply chain explained.

40 Olacde (n.a.). Latin America and the Caribbean Triple the Number of Electric Vehicles in 2024 and Accelerate Sales in 2025.

electrification mandate, if not aligned with partner-market readiness, risks compressing export opportunities in markets where ICE demand will persist for at least another decade, thereby exacerbating the timing mismatch between domestic-transition costs and external-revenue streams

Table 1: Tariff reduction schedules for combustion and electric / hybrid cars under the MERCOSUR treaty

Agreement Year	Combustion (15V)	Electric / Hybrid
Year 0	0% (or 50% if in quota)	**28.6%**
Year 5	0% (or 50% if in quota)	28.6%
Year 7	**19%**	42.9%
Year 10	**64.3%**	57.1%
Year 15	**100% (Duty Free)**	85.7%
Year 18	100%	**100% (Duty Free)**

Source: *Council of the European Union.*

Moreover, prolonged uncertainty regarding the ECJ's final ruling on the legality of the agreement's structure is already delaying market-entry planning and investment scheduling. Industry-level assessments indicate that two years of regulatory ambiguity could defer an estimated €15–20 billion in cumulative FDI across EU–MERCOSUR automotive and components projects, with much of the resulting investment vacuum likely to be absorbed by Chinese manufacturers.[41]

Competitiveness and Asymmetric Structural Risks

The EU automotive sector's size implies that even modest disruptions can have significant multiplier effects. In fact, shocks propagate across chemicals, steel, electronics, machinery, and advanced engineering, with knock-on effects on energy demand and regional employment.[42] Where European firms historically led in ICE and premium-segment technologies, the sector is increasingly defined by batteries, software, and vertically integrated supply chains, where China and the U.S. hold substantial advantages.

Germany is particularly exposed. Its automotive sector anchors extensive value chains across Central and Eastern Europe (notably the Czech Republic, Slovakia, Hungary, Poland, and Romania), where automotive manufacturing can

41 Investment Monitor (2026). Auto and logistics lead Chinese FDI sectors in Latin America.

42 Strategy& (2021). Electric Vehicle Transition Impact Assessment Report 2020 - 2040.

exceed 10% of regional employment. If industrial policy design accelerates faster than industrial restructuring, the consequences will be asymmetric, hitting hardest in regions where automotive employment[43] is concentrated and where adjustment capacity, skilled labour reallocation, retraining, and alternative growth sectors are the weakest.

Based on industry data (EXIOBASE 3), automotive gross value-added was about €30 billion lower per year between 2020 and 2022 than before the Fit for 55 announcement. Over the same period, firms invested around €6.6 billion less annually, reflecting projects that were postponed or cancelled amid uncertainty about technology choices and regulatory timelines. These estimates capture only the announcement effect. The actual economic impact is likely to be substantially larger once the ICE phase-out is fully enforced.

Case 3: The EU's Common Agricultural Policy (CAP)

The EU's CAP allocates €387 billion for 2021-2027, including €307 billion for 2023-2027 across 27 national strategic plans. However, persistent structural flaws are associated with suboptimal resource distribution and environmental returns. Since 1992, reforms have decoupled payments from production, reducing price supports and shifting to area-based mechanisms, which entrench inefficiencies in a sector where farms under 5 ha (49% of recipients) manage only 5% of land while farms over 250 ha (1% of recipients) manage 27% of land.[44]

From Price Support to Layered Objectives

The 1992 MacSharry reform cut institutional prices and introduced compensatory direct payments, initiating a shift from market support to area-based income support.[45] The 2003 Fischler reform went further by decoupling most payments from production and linking support to cross-compliance conditions, thereby reducing the most trade-distorting elements of the CAP while entrenching land-based allocation as the dominant channel of support.[46]

43 EPIC (2024). The crisis facing the EU's automotive industry.
44 Matthews (2021). Farm consolidation continues.
45 European Council (n.a.). Timeline - History of the CAP.
46 European Commission (2003). Dr. Franz Fischler Member of the European Commission responsible for Agriculture, Rural Development and Fisheries CAP Reform Committee on Agriculture and Rural Development Brussels, 9 July 2003.

Subsequent reforms added explicit climate and biodiversity objectives, largely through additional layers on top of existing income-support mechanisms rather than through a redesign of the core incentive structure.[47, 48] As a result, farmers now face a high-complexity set of conditions, while the marginal impact on incomes and environmental outcomes remains relatively modest in many cases.[49]

> Farmers now face a high-complexity set of conditions, while the marginal impact on incomes and environmental outcomes remains relatively modest.

EU agriculture is structurally diverse: most holdings are very small, while a small minority controls a large share of land and output. For example, farms under 5 hectares make up around half of all farms, yet they hold only around 5% of agricultural land. At the other end of the spectrum, just 1% of farms control more than a quarter of agricultural land and receive a correspondingly large share of direct payments.[50]

Despite this heterogeneity, the CAP continues to rely mainly on uniform, area-based direct payments and standardised eligibility rules. These instruments are administratively convenient at EU scale but implicitly favour larger, land-rich arable farms, while imposing similar fixed compliance requirements on smaller, more labour-intensive or geographically constrained farms.[51] This implies that a given administrative or implementation cost (for example, one additional reporting requirement) constitutes a much larger share of income for small farms than for large units, thereby exacerbating structural disadvantages for small farms.

47 European Council (n.a.). Timeline - History of the CAP.
48 European Commission (n.a.). Eco-schemes.
49 Röder, N. et al. (2024). What is the environmental potential of the post-2022 common agricultural policy?
50 Matthews (2021). Farm consolidation continues.
51 Scown, M. et al. (2020). Billions in Misspent EU Agricultural Subsidies Could Support the Sustainable Development Goals.

The dominance of area-based payments has predictable distributional effects.[52] The top 20% of recipients systematically capture a large majority of direct payments, while a long tail of smaller farms receives relatively small amounts per holding. Empirical work on CAP income effects finds that direct payments do increase farm incomes, but the gains are uneven across farm types, with higher absolute and relative benefits for larger and more capital-intensive holdings compared to small, labour-intensive farms (e.g., mixed or livestock systems).[53]

Quantitative evaluations typically show that CAP payments can account for a high share of farm income, often exceeding 50% in certain regions and sectors, but that they do not systematically support productivity-enhancing investment, innovation or generational renewal. Instead, they tend to stabilise existing structures, with limited evidence of significant convergence in incomes between small and large farms or between more and less favoured regions.[54] In distributional terms, the policy thus acts more as a monetary transfer to established farms than as a targeted instrument for correcting income inequality within the sector.

Environmental Performance and Compliance Burden

On the environmental side, the shift from cross-compliance to greening and eco-schemes has increased the share of support linked to environmental requirements, but evidence suggests only modest aggregate effects. Ex-post assessments of greening measures suggest that many obligations, such as crop diversification or ecological focus areas, imposed limited changes in farming practices in systems that were already relatively diversified, and had limited measurable impact on biodiversity indicators in intensive systems.[55]

At the same time, the cumulative complexity of CAP rules has generated a sizeable administrative burden. A recent EU-wide study estimates that farmers spend on average around seven working days per year on administrative tasks related to the CAP, with associated costs in the order of several hundred euros per farm, and up to more than €1,000 in some Member States (see Graph 2). These costs, which include time spent on applications, record-keeping, and

52 European Commission (2019). Evaluation of the impact of the CAP on habitats land scapes, biodiversity.

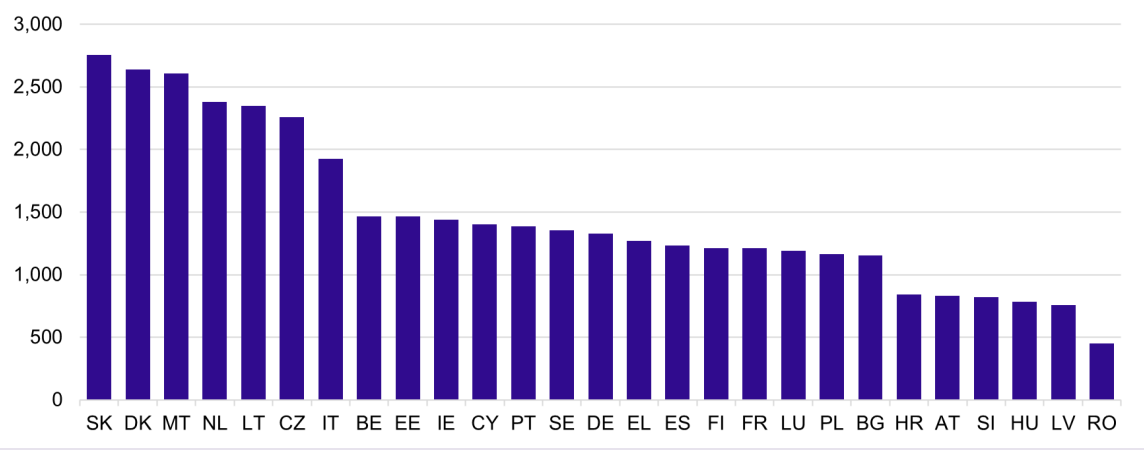
53 Matthews (2021). Farm consolidation continues.

54 Scown, M. et al. (2020). Billions in Misspent EU Agricultural Subsidies Could Support the Sustainable Development Goals.

55 European Commission (2019). Evaluation of the impact of the CAP on habitats land scapes, biodiversity.

responding to controls, are proportionally more significant for smaller farms.[56] This helps explain why farmers across many Member States increasingly describe the CAP as a compliance-heavy regime with unclear benefits, contributing to widespread protests in recent years.[57, 58, 59]

Graph 2: Average total costs in euros spent by farmers on administrative tasks by country per year



Source: *EU CAP Network*

Reactive Use of CAP and Implications for Better Regulation

The structural weaknesses in CAP design become evident when the policy is used as a compensation tool for other EU decisions, such as trade agreements. Proposals to increase CAP envelopes or introduce additional safeguards at the end of trade negotiations (for example, in the context of MERCOSUR)[60] illustrate a pattern in which agricultural concerns are addressed ex post, through financial transfers, rather than integrated ex ante into the design and sequencing of regulatory and trade instruments.

From a better-regulation perspective, the CAP experience highlights several principles for Stability-by-Design: instruments need to be calibrated to sectoral heterogeneity rather than to an average farm; support should be more tightly linked to measurable outcomes (income, productivity, environmental impact) rather than to adherence to detailed procedural rules; administrative

56 EU CAP Network (2025). Study on simplification and administrative burden for farmers and other beneficiaries under the CAP.
57 The Local (2024). Polish farmers keep German border crossing blocked.
58 EUNews (2025). Tractors on the streets in Brussels against cuts in agricultural policy and MERCOSUR agreement.
59 EuroNews (2024). Farmers from 12 EU countries continue to protest agricultural policies.
60 EURACTIV (2026). Mercosur: Brussels woos farm ministers with reciprocity, tariff con cessions.

requirements should be benchmarked against explicit burden targets; and stakeholder engagement should be structured early in the legislative cycle, rather than relying on reactive compensation once political conflict has materialised.

We estimate the economic cost of these allocative inefficiencies using the findings of Costa et al. (2009), who found that EU agricultural border protection and domestic support programmes reduced overall EU welfare by approximately 0.3% of GDP per year.[61] Taken together, these inefficiencies reduce EU economic output by around €27 billion each year and put roughly 18,000 jobs at risk annually. Over the past 23 years, this amounts to around €626 billion in foregone GDP.[62]

Prospective Regulatory Challenges in the Current Commission Work Programme

While the case studies analysed in the preceding section illustrate past implementation gaps, similar governance risks are visible in several major initiatives announced in the European Commission's 2026 Work Programme. These cases reinforce what the previous examples have demonstrated: the challenge the EU faces is not confined to isolated sectors but is systemic. The EU continues to advance regulatory agendas of considerable scope without adequate economic calibration, stakeholder alignment, or proportionality testing, and the resulting costs accumulate across the economy simultaneously. This stands at odds with another core aim of the EU's Better Regulation initiative: the EU has committed to reducing the administrative burden for businesses by

61 Costa et al. (2009), The economic effects of European agricultural policy

62 We estimate the GDP drag of CAP allocative inefficiencies by applying a welfare-loss rate to annual EU-27 gross value added. The CAP welfare-loss estimate we applied the Costa et al. (2009) finding that EU agricultural border protection and domestic support reduced overall EU welfare by approximately 0.3% of GDP per year. The 2013 CAP partial liberalization removed one source of welfare drag (export subsidies) but preserved the two larger distortionary instruments (agricultural import tariffs and the area-based direct payment structure), implying a reduction in the overall GDP cost but not its elimination. We therefore apply the Costa et al. (2009) estimate of 0.3% of GDP per year for the 2003–2013 period, reflecting the full set of trade-distorting instruments, and a reduced rate of 0.2% of GDP for the post-2013 period to account for the removal of export subsidies. Both rates are applied to annual Eurostat EU-27 gross value added. Employment impact is derived using the 2024 employment-to-GDP ratio from Eurostat (0.0000122 jobs per € GDP).

25%, which translates into €37.5 billion in savings for businesses, and to drive this effort further in the coming years.[63] To succeed, upcoming regulations should be designed aiming at preventing additional large administrative burdens for businesses.

The following section examines five prospective regulatory cases where these patterns are likely to recur: the revision of TPD, the EU's AI regulatory framework, PPWR, CBAM, and the Novel Foods Regulation. For each case, we estimate the annual economic impact of the current regulatory trajectory over 2026–2030 in terms of GDP, employment, and investment, and contrast it with a better regulation scenario that preserves the underlying policy objective while reducing deadweight economic loss.

The Tobacco Products Directive

The World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) established a global treaty framework, with periodic Conferences of the Parties (COPs) that provide guidance on the implementation of tobacco control. At the COP11 in 2025, an expert group put forward extensive measures, including flavour bans across tobacco and nicotine products, stricter penalties and sanctions for violation of the tobacco control law without clear operational criteria, far reaching restrictions on novel and reduced risk products, such as heated tobacco, and limitations on specific product components such as filters and technical features.[64] Taken together, these measures marked a clear shift away from traditional demand-side tobacco control towards extensive supply-side restrictions.

The proposals triggered strong division among EU Member States. Several Member States argued that the measures blurred the distinctions between combustible cigarettes and lower-risk alternatives such as heated tobacco products (HTPs), e-cigarettes, and nicotine pouches.[65, 66] Member States, including Italy, Greece, Poland, Romania, Lithuania, Portugal, and Czechia,[67] warned that applying uniform regulatory restrictions across different product

63 European Commission (2025). Simplification and Implementation.
64 WHO FCTC (2025). Forward-looking tobacco control measures (in relation to Article 2.1 of the WHO FCTC).
65 VitalSigns (2025). EU countries still far apart ahead of COP11 meeting.
66 Beaglehole et al. (2024). Harnessing tobacco harm reduction.
67 Euractiv (2025). EU split at WHO meeting seen as test for upcoming tobacco fight at home.

categories disregards heterogeneity in risk profiles, innovation trajectories, and behavioural substitution behaviour.[68, 69] Because these disagreements could not be resolved, the EU was unable to present a common position. For the first time in the history of the FCTC process, the EU remained effectively silent during key parts of the COP11 discussions, abstaining rather than speaking with a unified voice.[70] Further concerns were raised by a wide set of stakeholders, such as market participants along the supply-chain, tax and finance authorities,[71] customs,[72] consumer organisations, and public health experts.[73, 74, 75, 76, 77]

Although COP decisions are not directly transposed into EU law, the Commission has repeatedly included COP guidance in its tobacco control policy. For instance, the Joint Action on Tobacco Control (JATC), an EU-funded initiative, exemplifies this alignment by embedding COP-derived priorities into its workstreams. The JATC routinely refers to COP decisions and frames the regular revision of EU directives as the practical mechanism through which the EU operationalises elements of the "tobacco endgame".[78] Thus, even where COP priorities are not binding, they are likely to be reflected in the forthcoming revision of the TPD. In fact, a 2025 Council working document (WK 12688/2025 INIT) for the Public Health Working Party endorses filter bans on cigarettes as a regulatory option.[79]

If COP11 priorities are imported into the TPD, the EU risks repeating the familiar mistake of applying uniform rules before testing whether they are enforceable, proportionate, and suited to different product categories. This trade-off is illustrated by filters. The Commission's preparatory COP11 text frames filter bans as a real policy option, justified by environmental concerns. However, this

68 Tobacco Reporter (2025). EU abstains from COP11 vote amid internal disagreements.
69 2Firsts (2025). COP11 Update: Deep divide over regulation of e-cigarettes and nicotine pouches as EU pushes back against "total ban" draft.
70 Euractiv (2025). EU split at WHO meeting seen as test for upcoming tobacco fight at home.
71 Taxpayers Association (2025). TAE warns EU ahead of COP11: No radical measures that jeopardise European taxpayers, SMEs and economic stability.
72 The Brussels Times (2025). Don't ignore the people: The WHO and the EU must listen to consumers on tobacco harm reduction.
73 Clearing The Air (2025). EU's leaked COP11 position signals harsh crackdown on safer nicotine products.
74 Luongo, Francesco (2025). COP11: OMS prohibitionism vs. Harm Reduction - Europe abstains from voting.
75 The Counterfactual (2025). Expert Wall: statements on FCTC and tobacco harm reduction.
76 SCOHRE (2025). Press Release || SCOHRE Calls for Science-Based Tobacco Policy.
77 African Harm Reduction Alliance (2025). COP11 and the promise of harm reduction - Part 1.
78 See for example JATC (2024). Forward-looking tobacco control measures and tobacco endgame.
79 Council of the European Union (2025). WK 12688/2025 INIT.

measure introduces a significant public health trade-off. Removing filters may lead to deeper inhalation and increased intake of particulates for those who continue to smoke, potentially increasing the burden on healthcare systems in the short and long run.

The same logic applies to newer products. Tightening restrictions on HTPs and other alternatives is likely to weaken the switch away from traditional cigarettes. Some Member States, notably Italy, Greece, and Czechia, have argued that non-combustible products should be treated differently due to their lower risk profiles.[80] The Commission's preparatory text for COP11, by contrast, leans more heavily on the precautionary principle, treating nicotine products as potentially harmful and therefore subject to strict regulation.[81]

> A balanced approach, therefore, needs to weigh two risks at the same time: the uncertainty around new products as well as the well-established risk of the product they are due to replace.

The precautionary principle is meant to prevent harm when evidence is uncertain. In practical terms, however, it is often applied in only one direction: policymakers focus on the risks of letting a new product in, but pay less attention to the risks of keeping it out. That imbalance matters most when the incumbent is already known to be harmful, as with cigarettes. If lower-risk products are regulated as if they were cigarettes, some consumers are less likely to switch. In that case, the policy can unintentionally protect the riskiest product in the market. This one-sided application is common across EU policy, from digital technologies to healthcare and consumer goods, and it weakens evidence-based decision-making by systematically biasing choices against innovation and change.[82] A balanced approach, therefore, needs to weigh two risks at the same time: the uncertainty around new products as well as the well-established risk of the product they are due to replace.

[80] Euractiv (2025). EU split at WHO meeting seen as test for upcoming tobacco fight at home.
[81] Council of the European Union (2025). WK 12688/2025 INIT.
[82] Messmer (2026). The Precautionary Principle - An Obstacle to Equal Treatment and Innovation?

In tobacco control, this asymmetry has direct consequences on public health. Lower-risk nicotine products such as HTPs, e-cigarettes, and nicotine pouches could face the same regulatory treatment as combustible cigarettes, despite a growing body of evidence that they carry substantially lower risk.[83, 84, 85, 86] If those restrictions push consumers back to combustible cigarettes, the net health outcome is worse, not better. A regulatory framework that accounts for the possibility that a new product might cause harm, while ignoring the established fact that the product it replaces does cause harm, effectively defers a decision at the cost of public health.

EU tobacco control has so far delivered only modest and uneven gains in smoking reduction, and the EU is not on a credible path towards a 5% smoke-free objective. This under-performance strengthens the concern that importing COP11 priorities into the TPD would entrench an ineffective policy mix instead of re-orienting it towards more impactful, risk-differentiated measures. EU Smoking prevalence fell from 29.3% in 2009 to 24.6% in 2023, with a modest pace of around 0.33 percentage points per year on average. Several factors, including tobacco control, contribute to the decline in smoking prevalence, such as demographic changes, shifting social norms, and the growing availability of

83 U.S. Food and Drug Administration (FDA), Modified Risk Granted Orders, MR0000059–MR0000061 (July 7, 2020). The FDA authorized the marketing of IQOS with reduced exposure claims, finding that "switching completely from conventional cigarettes to the IQOS system significantly reduces your body's exposure to harmful or potentially harmful chemicals" and that the order "is expected to benefit the health of the popula tion as a whole." Reaffirmed for IQOS 3 in March 2022.

84 German Federal Institute for Risk Assessment (BfR). The BfR confirmed substantially re duced toxicant levels for HTPs, reporting reductions of over 80–99% in key carcinogens including aldehydes, polycyclic aromatic hydrocarbons, and tobacco-specific nitrosa-mines compared to conventional cigarettes. Toxic heavy metals and carbon monoxide were diminished by over 90%. See: Mallock et al. (2018), "Levels of selected analytes in the emissions of 'heat not burn' tobacco products that are relevant to assess human health risks," Archives of Toxicology, 92(6), 2145–2149; Mallock et al. (2019), Heated Tobacco Products: A Review of Current Knowledge and Initial Assessments, Frontiers in Public Health, 7:287.

85 Belgian Superior Health Council (SHC), Advisory Report No. 9538 on Heated Tobacco Products (April 2020). The Council acknowledged that "following a switch from conven tional cigarettes to heated tobacco products (IQOS or GLO), significant decreases in biomarker levels of exposure to harmful and potentially harmful constituents have been observed" and that "favourable changes have also been noted in several biomark ers with biological impact, suggesting that there is potential for a decreased risk of disease if smokers switch from conventional cigarettes to heated tobacco products."

86 UK Committee on Toxicity of Chemicals in Food, Consumer Products and the Envi ronment (COT), Statement on the potential toxicological risks from electronic nicotine (and non-nicotine) delivery systems (September 2020). The COT concluded that the re-placement of conventional cigarette smoking with nicotine e-cigarettes "was likely to be associated with a reduction in overall risk of adverse health effects." On HTPs specifical-ly, the COT assessed that "as the exposure to compounds of concern in the aerosol is reduced compared to conventional cigarette smoke, it is likely that there is a reduction in risk." Public Health England (now OHID) separately stated that HTPs are "considerably less harmful than tobacco cigarettes."

lower-risk alternatives, illustrating that the effect of tobacco control itself has been moderate and uneven (Graph 2). Projecting the average 2009–2024 pace forward implies little further progress by 2035 (around 21%).

Further, smoking prevalence among 25–39 year olds stood at 32% in 2023, unchanged since 2020, and the highest of any age group. This cohort has been exposed throughout its formative years to the full range of existing tobacco control measures, including health warnings, advertising restrictions, and successive excise tax increases, yet prevalence remains persistently high. By contrast, prevalence among adults aged 55 and over is approximately 19%.

This pattern indicates that part of the decline in overall EU smoking prevalence reflects demographic change rather than behavioural shifts. As the population ages, a larger share of adults moves into older cohorts with structurally lower smoking rates, mechanically reducing the aggregate average. However, this demographic effect is inherently limited. The group that will shape EU smoking rates over the coming decades is today's 25–39 cohort, which has shown little additional responsiveness to a policy framework that has largely tightened over time. As this cohort ages, the currently low prevalence profile of older groups may not be sustained.

Further progress is therefore likely to require approaches that extend beyond the conventional tobacco control toolkit, including more explicit differentiation between product categories and their associated risks, rather than simply intensifying the same set of measures. To this extent, countries —such as Czechia, Greece, and Sweden—are already implementing risk based regulatory strategies that have achieved more rapid reductions in smoking prevalence than traditional frameworks. These experiences suggest that a one size fits all model is unlikely to be optimal. Each country should be able to assess which combination of measures is most effective in its own context, and where one country's approach delivers demonstrably better outcomes, others may reasonably consider following suit.

The TPD COP11 scenario risks limiting already slow prevalence decline even further. Restricting access to lower-risk alternatives through flavour bans, standardised packaging, use restrictions, and sales limitations can increase cigarette smoking prevalence, as consumers may drift back towards cigarettes rather than quit altogether.[87, 88, 89, 90] Under the TPD COP11 scenario, EU

[87] Friedman (2015). How does electronic cigarette access affect adolescent smoking? Journal of Health Economics, 44, 300-308.

[88] Cooper and Pesko (2017). The effect of e-cigarette indoor vaping restrictions on adult prenatal smoking and birth outcomes. Journal of Health Economics, 56, 178-190.

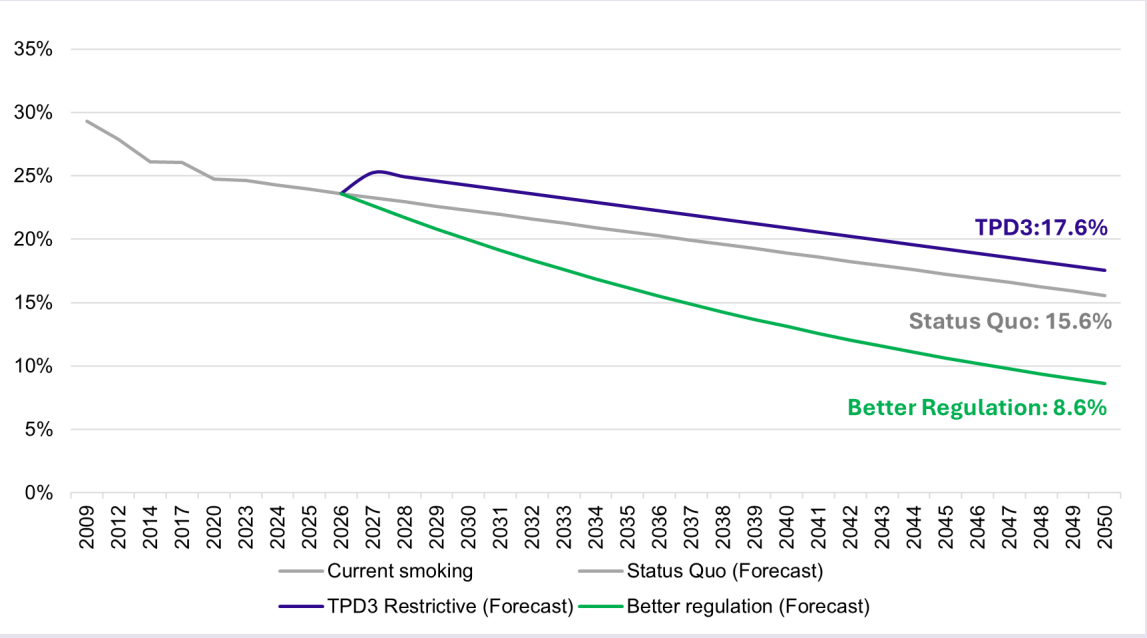
[89] Cheng et al. (2025). State E-Cigarette Flavor Restrictions and Tobacco Product Use in Youths and Adults. JAMA Network Open, 8(7), e2524184.

[90] Cotti et al. (2025). The effect of e-cigarette flavor bans on tobacco use. Journal of Health Economics, 102, 103013.

smoking prevalence risks increasing from 23.6% in 2026 to 25.3% in 2027, as substitution routes away from combustible products are narrowed. By 2050, prevalence would decline to 17.6%, which is around two percentage points above the status quo baseline of 15.6%. In other words, relative to the baseline trend, this leaves the EU further from its smoke-free objective.

By contrast, the UK provides a benchmark for how risk-differentiated product treatment can accelerate reductions. Smoking prevalence in the UK fell from 27.1% in 1998 to 9.1% in 2024, an annual decline rate of -4.1%.[91] Applying an analogous trajectory to the EU baseline under a Better Regulation scenario would imply roughly 16.2% prevalence by 2035 and only 8.6% by 2050 (vs. 17.6% under the TPD scenario and 15.6% under the status quo). A framework that preserves risk differentiation between product categories and supports switching to lower-risk alternatives can accelerate the decline in smoking prevalence. By contrast, uniform restrictions across product categories would likely entrench the current prevalence plateau, delaying long-term health and healthcare benefits.

Graph 2: EU smoking prevalence reduction under status quo development and Better Regulation scenario, 2009-50



Source: *Eurobarometer, Eurobarometer 2010; Eurobarometer 2012; Eurobarometer 2015; Eurobarometer 2017; Eurobarometer 2020.*

Further, large-scale regulatory interventions risk an important expansion of the illicit market, undermining the policy priority of underage protection. Currently, illicit trade already accounts for 9.2% of total EU cigarette consumption, resulting

[91] Office for National Statistics. (2025). Adult smoking habits in Great Britain [Dataset].

in €14.9 billion in lost tax revenue each year.[92] For e-cigarettes, the Fraunhofer Institute estimates that the irregular market could be as high as 48% of total EU volume. By definition, these products bypass safeguards. Illegal sellers ignore minimum-age restrictions and can supply non-compliant disposables with excessive e-liquid, nicotine, or unnotified ingredients, with appealing fruit or candy flavours often marketed through social media.[93] The European Commission's evaluation of the TPD and Tobacco Advertising Directive (TAD) itself identifies structural reasons why digital promotion remains hard to control. A significant share of tobacco and nicotine product exposure online is driven by user-generated content, which falls outside the legal scope of regulated commercial communications. As a result, even where formal advertising is restricted, the dominant channel shaping product awareness and uptake, especially for novel categories, can remain partially unregulated in practice.[94] Likewise, the European Anti-Fraud Office (OLAF) reports that organized criminal groups are increasingly targeting illegal trade because of its high profitability.[95] This weakens the expected effectiveness of blanket restrictions and increases the likelihood of displacement into channels that regulators can least supervise.

The 2025 proposal for a revised Tobacco Taxation Directive (TTD) seeks to introduce stronger controls on raw tobacco, which is frequently diverted into illicit manufacturing within the EU. By bringing raw tobacco under the Excise Movement and Control System (EMCS), the Commission aims to disrupt domestic illicit supply chains. However, a ban on flavours and filters could simultaneously create new incentives for smuggling from non-EU jurisdictions where such products remain legal.

When legal supply is restricted, but demand persists, underage exposure can shift toward illicit channels. Experience in the Netherlands following the introduction of a flavour ban is consistent with this risk: adolescent e-cigarette use remained elevated alongside a rapidly expanding illicit market.[96] This dynamic is further amplified by social-media platforms, where illicit products are openly advertised and distributed through unregulated channels, while compliant products face stringent advertising restrictions. In this context, the Fraunhofer Institute has warned that black-market dominance undermines consumer protection, exposing an estimated 11.9 million EU e-cigarette users to untested additives and early nicotine addiction.

92 KPMG (2025). Illicit Cigarette Consumption in Europe.

93 Fraunhofer (2026). Der irreguläre Markt für E-Zigaretten in Europa.

94 European Commission (2026). Evaluation of the Tobacco Products Directive (2014/40/EU), the Tobacco Advertising Directive (2003/33/EC) and other related tobacco control policies across the EU.

95 OLAF (2025). Executive summary - OLAF: detect, investigate, protect.

96 Raad et al. (2025). Frequent, dual and nighttime nicotine use among Dutch adolescents: findings from a school-based survey. Eur J Pediatr. 184(12).

A risk-aligned regulatory framework would better reconcile youth prevention and illicit curbing objectives by prohibiting underage-oriented candy flavours while permitting options such as menthol to support adult smokers in switching from combustible products to compliant smoke-free alternatives.

The economic footprint of the tobacco sector remains substantial. Using constant 2023 data, our report "The End of Smoking" calculates that the industry contributes some €224 billion annually to EU GDP across production, wholesale, and retail, and supports 2.1 million jobs along the value chain. It generates over €60 billion in annual wages, complemented by €112.9 billion in excise tax revenues that exceed half of the EU's €326 billion in defence spending (1.9% of GDP).[97] Tobacco-related tax revenues thus play an important role in funding national priorities. In fact, Lithuania explicitly ties excise taxes to its newly established State Defence Fund,[98] underlining the fiscal risk of a rapid and uncalibrated market collapse.

A relevant portion of the European GDP is at stake if the COP11 proposals are carried into the TPD as described above. Product prohibitions and uniform restrictions on lower-risk alternatives would fundamentally alter the commercial viability of the domestic market. The economic consequences depend on how firms and illicit operators respond. Two dynamics are relevant. First, restrictive regulation increases compliance costs and reduces the relative competitiveness of EU-based production, leading manufacturing to migrate to non-EU jurisdictions. Domestic production-related value added is lost accordingly. Second, as prices increase, restrictions intensify, and domestic production declines, the illicit market expands.

Our estimates suggest that, if the COP11 measures are carried into the TPD in the form as described above, the EU would face a sizeable economic shock over 2026-2030. In the production-relocation scenario, the estimated annual average GDP loss is around €48 billion. Within that total, about €24 billion is lost excise and VAT revenue. The same scenario is associated with roughly 120,000 jobs at risk and an annual average investment shortfall of €11 billion (Table 2).[99] The Commission's own findings on procedural lag, digital loopholes,

[97] EPIC (2025). Economic Impact of Tobacco in the Europe.

[98] Reg Follower (2024). Lithuania: Parliament adopts state defence fund, increase corporate income tax and excise duties.

[99] Under the production-relocation scenario, manufacturing relocates entirely to non-EU jurisdictions. Wholesale and retail activity is partially retained, with 5% captured through illicit and informal channels. GDP, employment and investment losses are derived accordingly. All figures are reported as annual averages over the 2026-2030 horizon. Under the better regulation scenario, the sector grows at the projected global cumulative annual growth rate (2.7%) (CAGR) through 2030, with additional R&D investment in next-generation products.

and scope gaps[100] imply that this risk is not hypothetical but a predictable response of a fast-moving market to rigid restrictions.

Table 2: Economic impact of the TPD3 revision (annual average, 2026-2030)[101]

Scenario	GDP impact (bn €)	Employment impact (jobs)	Investment impact (bn €)
Estimated impact under current regulation	-47.6	-119,590	-10.5
Estimated impact under better regulation	+32.0	+62,575	+7.1
Relative impact of better regulation	+79.6	+182,165	+17.6

Source: *EU CAP Network*

Our report "The End of Smoking" suggests that, rather than relying on broad prohibitions, the EU can preserve economic stability while improving health outcomes by supporting the shifts from cigarettes to smoke-free alternatives. If overall nicotine use remains broadly stable but moves to less harmful delivery methods, tobacco-related revenues can be maintained while smoking-related disease falls. In that setting, lower rates of smoking-related illness translate into around €6 billion per year in avoided healthcare expenditure, without eroding the tax base.[102]

Under this better regulation scenario, the framework is designed to keep licit product variation and innovation within the regulated market, instead of pushing demand into unregulated channels. The rules remain predictable and enforceable, maintain safety standards, and still allow firms to invest and compete as the product mix evolves. Relative to the COP11 restrictive baseline, the better regulation scenario implies an annual average GDP improvement of around €80 billion, more than 182,000 jobs saved or created, and an annual average investment gain of €18 billion (Table 2). This corresponds to around

100 European Commission (2026). Evaluation of the Tobacco Products Directive (2014/40/), the Tobacco Advertising Directive (2003/33/EC) and other related tobacco control policies across the EU.

101 The precise trajectory of these losses is uncertain. Regulatory adjustment is gradual, not instantaneous: production relocation, supply-chain reconfiguration, and workforce reallocation unfold over months and years, not in a single event. We therefore report the annual average over the five-year horizon rather than projecting year-by-year impacts.

102 Stazi et al. (2026). Smoking-attributable hospitalization costs in Europe: an econometric analysis the Europea Health Interview Survey, 2019. BMJ Public Health.

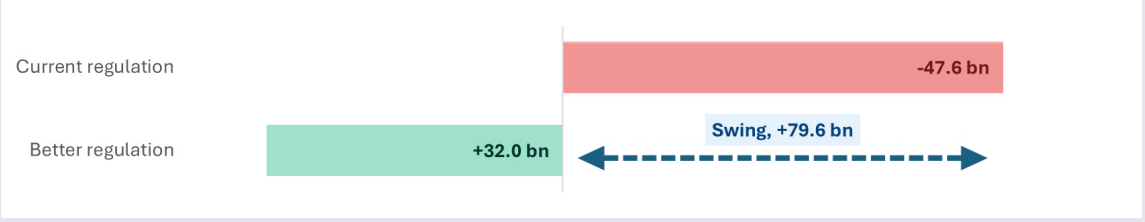
€16 billion in recovered tax revenue.

Finally, the TPD revision will interact with parallel reforms in excise taxation, packaging, sustainability rules, and national regulatory incentives. Because firms and consumers experience these measures as a package, the combined impact can be larger than any single file suggests, particularly if the reforms are introduced on overlapping timelines.[103]

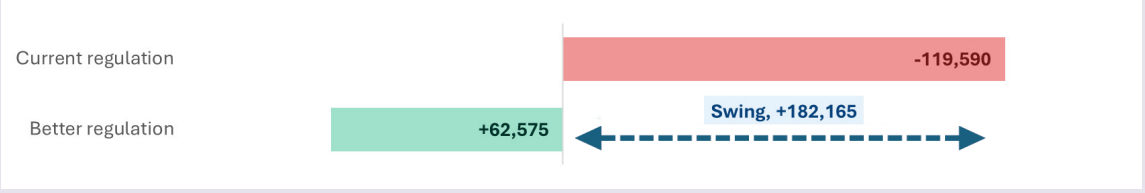
The Commission's 2026 evaluation report does not prove that the current framework is effective: it only admits that it cannot explain the contributions of TPD and TAD due to missing quantitative data. It ranks "what mattered most" on qualitative input rather than causal identification.[104] On that basis, it is highly doubtful that a stricter TPD3 will deliver measurable effects, because the evaluation has not established which instruments work, at what margin, or under what enforcement constraints.

Figure 1: Economic impact of the TPD3 revision (annual average, 2026–2030)

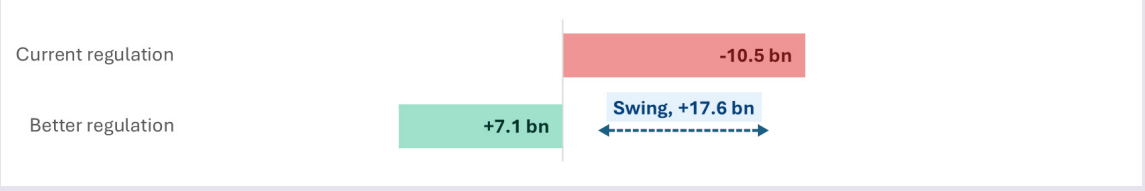
GDP impact (bn €)



Employment impact (jobs)



Investment impact (bn €)



103 European Parliament (2025). Tobacco tax reform in the EU: Overview of the implementation of the current directives and its revision.

104 European Commission (2026). Evaluation of the Tobacco Products Directive (2014/40/EU), the Tobacco Advertising Directive (2003/33/EC) and other related tobacco control policies across the EU.

AI Regulations

The EU's emerging regulatory framework for AI,[105] anchored in the AI Act, data-protection regulation, and occupational rules, has legitimate objectives related to safety, transparency, and fundamental-rights protection. However, the cumulative effect of these measures is reshaping firms' operational environment at a time when productivity growth is weak, and financing conditions are tightening. In line with broader regulatory developments across the Single Market, the structure and timing of AI-related rules influence not only compliance behaviour but also investment incentives, technology diffusion and the competitiveness of EU firms relative to global peers.

> Across the EU, firms face an increasingly dense regulatory perimeter around AI development and deployment.

Across the EU, firms face an increasingly dense regulatory perimeter around AI development and deployment. When these obligations are assessed individually, each appears manageable. However, taken together, these requirements make it significantly more costly and complex for firms to use AI in everyday applications. This is particularly restrictive in sectors with tight margins or limited capacity for compliance. As a result, much of AI's potential productivity benefit does not materialise in practice, as firms either delay adoption, limit use cases, or avoid deployment altogether under the current framework.

Recent analytical work by Misch et al. (2025) from the IMF quantifies these effects. Their estimates indicate that, absent regulatory frictions, AI could raise EU total factor productivity by 1.1% over five years. Under current regulatory conditions, however, these gains are reduced by 38%, reflecting the combined influence of data-privacy requirements, risk-classification obligations and sector-specific operational rules. As a result, the EU loses around €24 billion in economic output each year between 2026 and 2030, has around 62,000

[105] European Commission (2025). Explaining the Commission Work Programme 2026.

jobs at risk on average per year, and an annual average investment shortfall of around €5.3 billion (Table 3).[106]

A more proportionate regulatory design could limit these losses. Under a better-regulation scenario aimed at implementing a sharper differentiation between high-risk and low-risk AI applications while maintaining essential safety safeguards, the fall in potential productivity gains decreases to around 25% (from 38%). Within the same framework, the EU could prevent annual average GDP losses relative to the baseline of around €12 billion by 2030, save an estimated 31,000 jobs, and prevent an annual average investment loss of €2.7 billion.[107]

Table 3: Economic impact of AI regulations (annual average, 2026-2030)

Scenario	GDP impact (bn €)	Employment impact (jobs)	Investment impact (bn €)
Estimated impact under current regulation	-24.0	-61,901	-5.3
Estimated impact under better regulation	-12.0	-30,951	-2.6
Relative impact of better regulation	+12.0	+30,950	+2.7

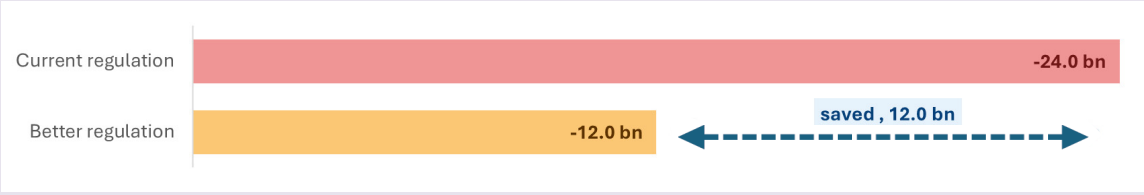
Taken together, these results highlight the importance of regulatory predictability and calibration. A framework that differentiates more sharply between high- and low-risk applications, provides clearer implementation sequencing, and reduces overlapping compliance requirements can preserve the EU's safety and rights-protection goals while enabling a larger share of AI's productivity potential to materialise. In an environment of tightening fiscal constraints and slowing productivity growth, such gains constitute a significant lever for competitiveness and long-term economic resilience.

106 Misch et al. (2025). AI and Productivity in Europe. IMF Working Paper WP/25/67.

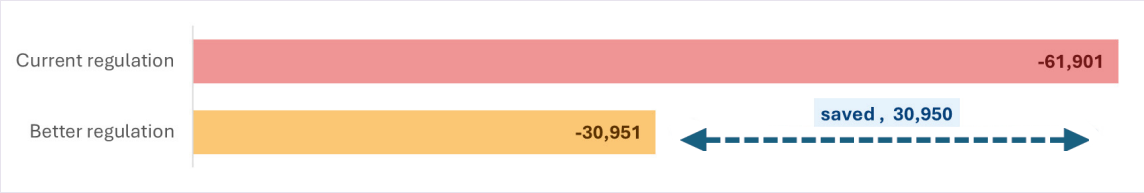
107 Scenario methodology: The baseline applies the 10% regulatory reduction of AI productivity gains attributable to the AI Act, isolated from the broader 38% combined drag estimated by Misch et al. (2025) which also encompasses data privacy regulation and occupational regulation. The better regulation counterfactual halves the stringency of the AI Act, yielding a total reduction of approximately 5%. The improvement reported is the difference between the two scenarios. All figures are reported as annual averages over the 2026-2030 horizon.

Figure 2: Economic impact of AI regulations (annual average, 2026–2030)

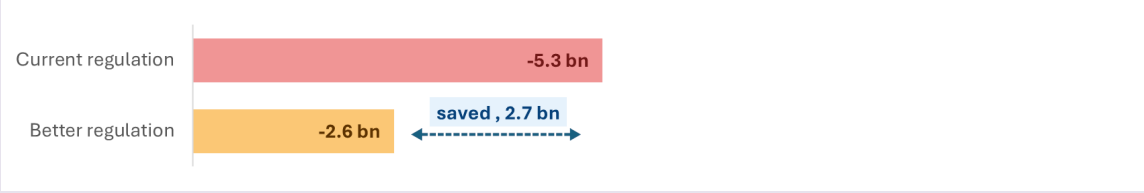
GDP impact (bn €)



Employment impact (jobs)



Investment impact (bn €)



Packaging and Packaging Waste Regulation (PPWR)

The PPWR primarily affects firms by shifting resources from productive activity towards compliance. Reuse targets, design mandates, and reverse-logistics obligations require new infrastructure and operational adjustments, diverting capital and managerial time away from output expansion and technological upgrading.

According to the Commission's impact assessment, these obligations reduce annual producer revenues by €59.9 billion.[108] When translated into macroeconomic terms, using GDP-to-output ratios and supply-chain multipliers, the estimated annual impact between 2026 and 2030 amounts to €42 billion in GDP losses, exposes over 112,000 jobs on average per year, and results in an annual average investment shortfall of €9.2 billion (Table 4).

[108] European Commission (2022). Impact Assessment Report accompanying the Proposal for a Regulation on Packaging and Packaging Waste.

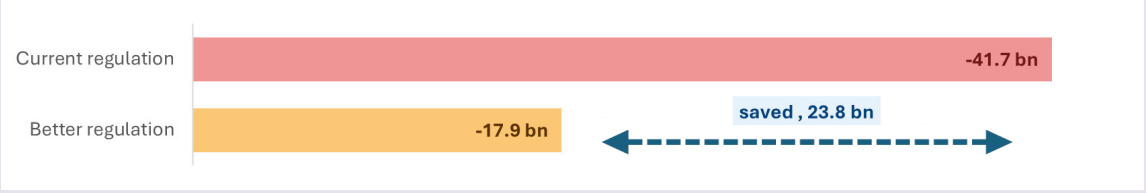
A better regulation scenario for PPWR, extending the timeline by three years while keeping environmental objectives intact, substantially lowers these adjustment costs. In this scenario, annual average GDP improves by €24 billion relative to the baseline, with an additional €5.3 billion in investment, achieving the same policy goals at markedly lower economic cost.[109]

Table 4: Economic impact of the PPWR (annual average, 2026–2030)

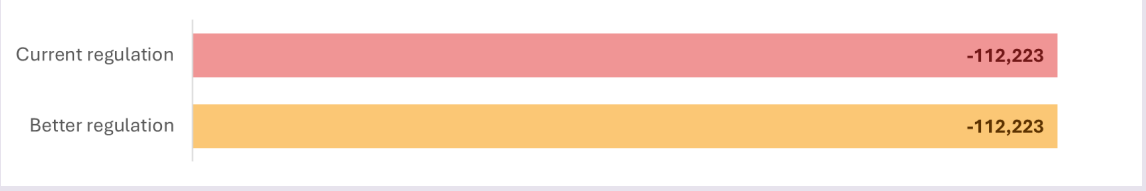
Scenario	GDP impact (bn €)	Employ–ment impact (jobs)	Investment impact (bn €)
Estimated impact under current regulation	–41.7	–112,223	–9.2
Estimated impact under better regulation	–17.9	–112,223	–3.9
Relative impact of better regu–lation	+23.8	0	+5.3

Figure 3: Economic impact of the PPWR (annual average, 2026–2030)

GDP impact (bn €)

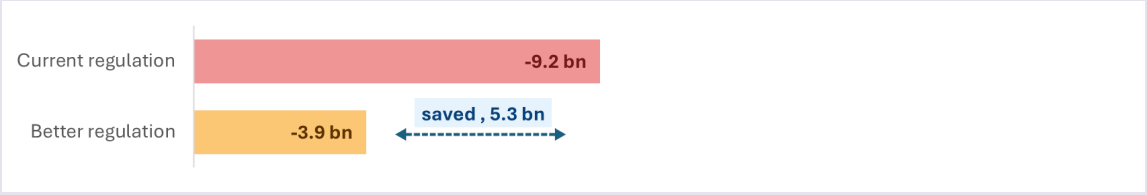


Employment impact (jobs)



109 The baseline applies a conservative revenue loss estimate of €50 billion (below the im pact assessment's upper-bound estimate of €59.9 billion) and projects it forward over five years of full implementation (2026-2030), applying supply-chain multipliers derived from multi-regional input-output analysis. The better regulation counterfactual assumes a three-year postponement of implementation, reducing the cost accumulation window to two years (2029-2030) by 2030. The improvement reported is the difference between the two scenarios. All figures are reported as annual averages over the 2026-2030 hori zon

Investment impact (bn €)



Carbon Border Adjustment Mechanism (CBAM)

The CBAM seeks to limit carbon leakage by requiring importers of carbon-intensive goods to purchase certificates aligned with the EU carbon price. While the measure advances a legitimate climate objective, its implementation generates compliance costs, administrative complexity and additional trade friction that extend beyond the directly regulated sectors.

According to the Commission's impact assessment, the preferred CBAM design implies an EU-wide GDP loss of 0.227%, which, when projected over 2026–2030, translates into an annual average GDP loss of €44 billion, exposure of approximately 118,000 jobs, and an annual average investment shortfall of €9.7 billion (Table 5).[110]

Table 5: Economic impact of CBAM (annual average, 2026–2030)

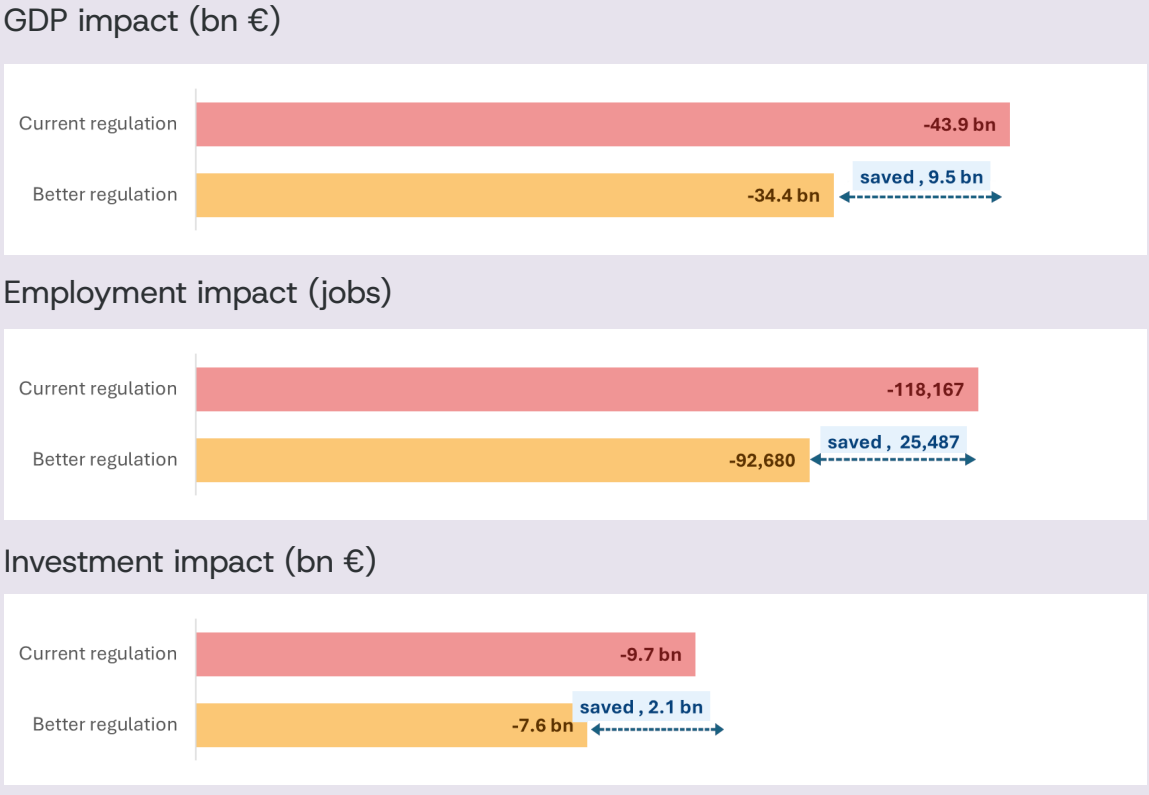
Scenario	GDP impact (bn €)	Employ-ment impact (jobs)	Investment impact (bn €)
Estimated impact under current regulation	−43.9	−118,167	−9.7
Estimated impact under better regulation	−34.4	−92,680	−7.6
Relative impact of better regu-lation	+9.5	+25,487	+2.1

A better regulation scenario, centred on a less stringent carbon-price path, would significantly reduce these adjustment costs. The baseline CBAM

[110] European Commission (2021). Impact Assessment accompanying the proposal for a Carbon Border Adjustment Mechanism.

scenario assumes a carbon price of €46 per tonne of CO2.[111] For the better regulation scenario, we draw on a separate Commission impact assessment for the 2030 Climate Target Plan, which modelled a range of policy mixes at different ambition levels. The MIX–50 scenario in that assessment represents a policy mix targeting a 50% emissions reduction rather than 55%, relying more on graduated price signals and less on front–loaded regulatory mandates.[112] That scenario assumes a carbon price of €36 per tonne of CO2. Applying this lower price proportionally yields an estimated €9.5 billion annual average GDP improvement, 25,500 jobs saved, and an annual average investment gain of €2.1 billion relative to the baseline. This demonstrates that the same climate objective can be pursued with materially lower economic costs when price signals are calibrated and sequencing is more measured.

Figure 4: Economic impact of CBAM (annual average, 2026–2030)



111 The baseline applies a conservative GDP reduction of 0.200%, drawn from the Com mission's preferred-scenario estimate of 0.227% to projected EU GDP, using the five-year CAGR (2019-2024) from Eurostat. All figures are reported as annual averages over the 2026-2030 horizon. The better regulation counterfactual assumes a lower carbon price path (€36/tCO2 vs. €46/tCO2 baseline), drawn from the MIX-50 scenario in the Commission's 2030 Climate Target Plan impact assessment, scaling the GDP loss rate proportionally. Employment and investment impacts are derived using the 2024 em-ployment-to-GDP and GFCF-to-GDP ratios from Eurostat. The improvement reported is the difference between the two scenarios. All figures are reported as annual averages

112 European Commission (2020). 2030 Climate Target Plan impact assessment

Biotechnology and Novel Foods

Biotechnology and novel foods are increasingly important for the EU's food-security and competitiveness agenda,[113] yet the current regulatory framework remains slow and highly precautionary. Approval processes are lengthy and costly, treating new products mainly as risks rather than as potential contributors to a more productive and resilient food system.

Under the Novel Foods Regulation, approvals take an average of 2.56 years, [114]meaning applications filed in 2026 would not reach the market until mid-2028, leaving limited time for scale-up before 2030. These delays constrain the growth of emerging sectors, including the EU's alternative protein market, that is projected to reach €8.3 billion by 2030 under today's restrictive timelines. [115]The approval timeline alone generates measurable macroeconomic losses that amount to €1.6 billion in annual average GDP, 6,760 foregone jobs on average per year, and an annual average investment shortfall of €1.0 billion (Table 6).[116]

A better regulation scenario for the Novel Foods Regulation, streamlining procedural steps, such as clearer pre-submission guidance, earlier risk triage, reduced reliance on iterative data requests, and tighter coordination of timelines between the Commission and the European Food Safety Authority, would align regulatory approval more closely with innovation and investment cycles, reducing the approval duration to around 1.37 years. Under this scenario annual average GDP rises by €0.5 billion relative to the baseline, more than 2,260 jobs on average per year are saved, and annual average investment increases by €0.3 billion.

Although the macroeconomic footprint of this sector is smaller than in other cases, the underlying pattern is the same: regulatory timelines that are not aligned with innovation cycles impose avoidable costs without improving safety outcomes. A more proportionate, predictable framework would support innovation while maintaining rigorous consumer-protection standards.

---

113 European Commission (2020). Communication from the Commission: A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system. COM/2020/381.

114 Le Bloch et al (2025). Novel food regulation and approval timelines in the EU.

115 Grand View Research (2025). Europe Alternative Protein Market.

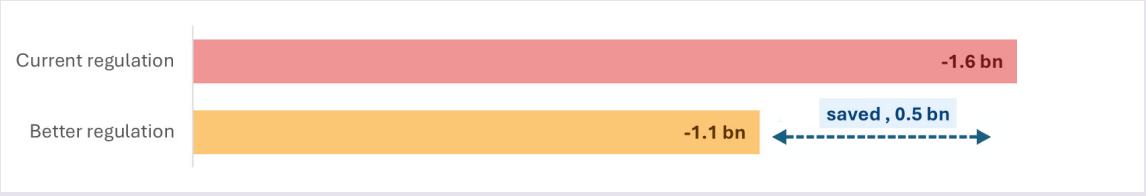
116 FoodDrinkEurope (2024). Data & Trends of the European Food and Drink Industry.

Table 5: Economic impact

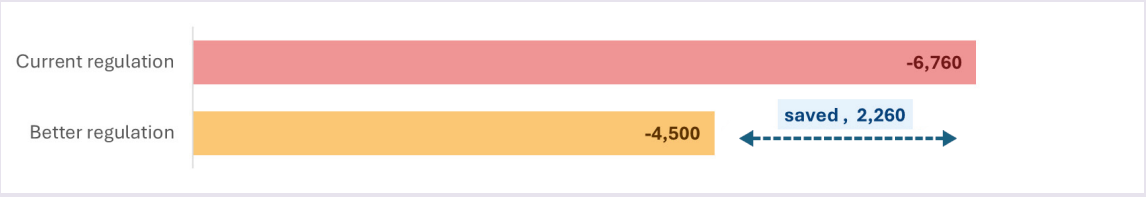
Scenario	GDP impact (bn €)	Employ-ment impact (jobs)	Investment impact (bn €)
Estimated impact under current regulation	-1.6	-6,760	-1.0
Estimated impact under better regulation	-1.1	-4,500	-0.7
Relative impact of better regu-lation	+0.5	+2,260	+0.3

Figure 5: Annual economic impact of Novel Foods regulation (average, 2026-2030)

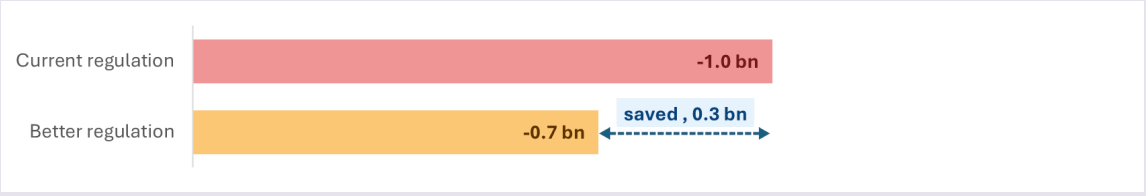
GDP impact (bn €)



Employment impact (jobs)



Investment impact (bn €)



The Cost of Regulatory Accumulation

A structural weakness in EU policymaking is the absence of cumulative impact assessment. Individual directives are evaluated in isolation, yet firms experience regulation as a portfolio: multiple obligations arriving simultaneously, each adding compliance costs, legal uncertainty and resource diversion. The economic burden created by this aggregation is therefore far greater than the sum of its parts.

Across the five cases examined, the cumulative effects are important. On an annual basis over 2026–2030, the combined annual average GDP loss from these regulations reaches €159 billion, with an annual average investment shortfall of €36 billion and 419,000 jobs (Table 7). These measures represent only a fraction of the Commission's full agenda. Additional initiatives, such as revisions to the Chips Act, the Digital Fairness Act, Farm-to-Fork, and the Battery Regulation, will impose further burdens on the same value chains, implying that the true economy-wide effect is still underestimated.

A Recurring Policy Failure

The pattern across the five cases depicted is consistent. In tobacco, the EU pursues public health by restricting products that reduce smoking, worsening public health outcomes. In AI, it pursues safety by raising adoption barriers that slow productivity growth. In packaging, it pursues environmental targets by imposing compliance timelines that divert investment from productive use. In carbon policy, it pursues climate objectives through a price that raises costs beyond what is needed to prevent leakage. In novel foods, it pursues food safety by delaying the products that could strengthen food security. In each case, regulations undermine the objective it is designed to serve. These measures impoverish the economy, weaken competitiveness, and produce worse outcomes in policy areas it claims to prioritise.

A better regulation approach, grounded in proportionality, technological openness, and sequenced implementation, would prevent a large part of these losses and still achieve the primary goals. Across the five cases, that shift recovers around €125 billion

in annual GDP each year, protects roughly 241,000 jobs, and restores about €28 billion in annual investment (Table 9).

The scale of improvement differs by file. For AI and CBAM, better regulation scenarios reduce annual average GDP losses by about 50% and 22%. For the PPWR, a phased implementation timeline reduces the annual average GDP loss by 57%. For Biotechnology and Novel Foods, faster approval timelines reduce annual average GDP losses by about one-third.

Table 7: Estimated impacts of upcoming regulations (annual average, 2026-2030) [117]

Regulation	GDP impact (bn €)	Employment impact (jobs)	Investment impact (bn €)
AI Regulations	-24.0	-61,901	-5.3
PPWR	-41.7	-112,223	-9.2
CBAM	-43.9	-118,167	-9.7
TPD3	-47.6	-119,590	-10.5
Biotech / Novel Foods	-1.6	-6,760	-1.0
Total	**-158.7**	**-418,641**	**-35.7**

Table 8: Estimated impacts under better regulation scenario (annual average, 2026-2030)

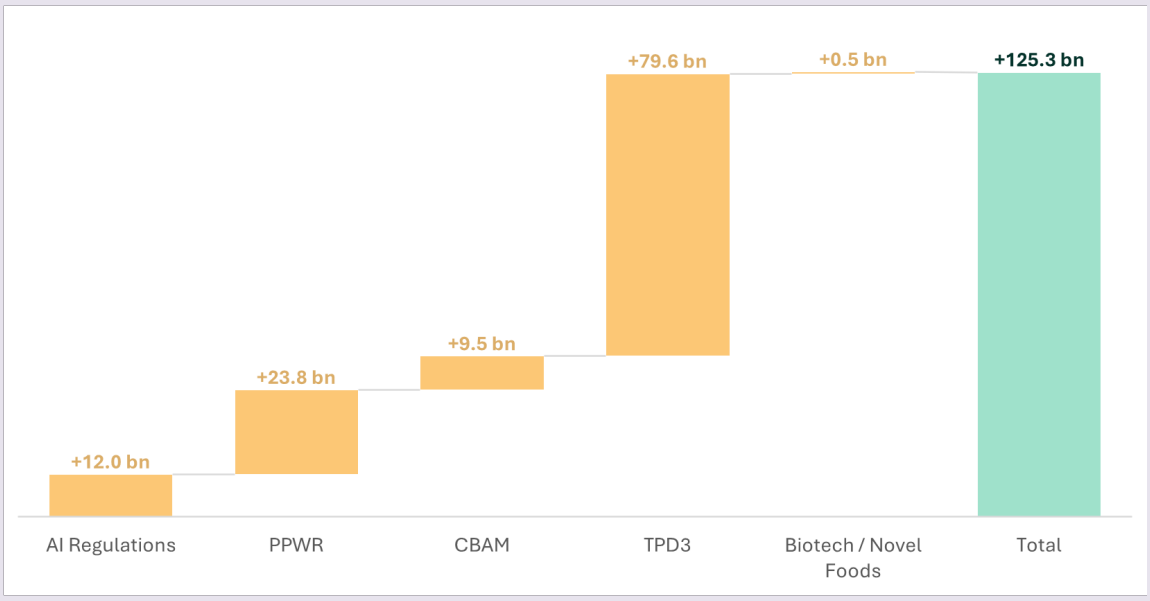
Regulation	GDP impact (bn €)	Employment impact (jobs)	Investment impact (bn €)
AI Regulations	-12.0	-30,951	-2.7
PPWR	-17.9	-112,223	-4.0
CBAM	-34.4	-92,680	-7.6
TPD3	+32.0	+62,575	+7.1
Biotech / Novel Foods	-0.7	-4,500	-1.0
Total	**-33.4**	**-177,782**	**-7.8**

[117] We acknowledge that the regulatory adjustment is gradual - production relocation, supply-chain reconfiguration, and workforce reallocation unfold over months and years, not in a single event. We therefore report the annual average over the five-year horizon rather than projecting year-by-year impacts.

Table 9: Net difference between current and better regulations (annual average, 2026–2030)[118]

Regulation	GDP impact (bn €)	Employ-ment impact (jobs)	Investment impact (bn €)
AI Regulations	+12.0	+30,950	+2.7
PPWR	+23.8	0	+5.3
CBAM	+9.5	+25,487	+2.1
TPD3	+79.6	+182,165	+17.6
Biotech / Novel Foods	+0.5	+2,260	+0.3
Total	**+125.3**	**+240,859**	**+27.9**

Figure 6: Net GDP impact between current and better regulations (annual average, 2026–2030)



[118] Employment impact reflects exposure at 2030. Because the PPWR is fully in force by 2030 under both scenarios, the employment exposure at that date is identical; the delay reduces cumulative GDP and investment costs but does not alter the end-state work force impact.

Key Learnings for Future Policy Design

The three retrospective cases analysed in this report – MERCOSUR, the automotive transition, and CAP – together imply annual economic costs of roughly 0.35% of EU GDP. These costs reflect recurring governance weaknesses that elevate non-economic priorities over economic sustainability, amplifying vulnerabilities amid trade fragmentation and fiscal constraints. The same governance pattern is visible in several current and upcoming files, notably TPD, AI regulation, PPWR, CBAM, and Biotechnology and Novel Foods, where cumulative burdens and interaction effects are insufficiently assessed.

Across the five prospective files analysed here, the estimated annual impact over 2026-2030 reaches around €159 billion in GDP losses, €36 billion in investment losses, and 419,000 jobs at risk. The following lessons identify key principles to restore policy effectiveness and competitiveness.

1. Policy Certainty is Part of Economic Performance

Across all cases, uncertainty about regulations – what they will require, when they will apply, and whether they will change again – emerges as a major cost driver. Stop-and-go policymaking is expensive because it makes firms postpone decisions that are hard to reverse. As such, the MERCOSUR's poor implementation process has created uncertainty for years. The negotiations ran for so long that key economic assessments became outdated, distributional tensions were handled late rather than designed around early, and the resulting reliance on last-minute fixes and legal escalation made the policy path harder to plan around. While the Interim Trade Agreement is scheduled to apply from 1 May, the ECJ opinion remains pending and is likely to delay investments by 12-24 months (associated with around €4.85-9.89 billion in investments delayed and €1.65-3.3 billion investments lost). The automotive phase-out revisions followed irreversible sunk investments. The CAP's successive layering compounds administrative burdens totalling €28 billion across seven years.

Risk premia associated with policy uncertainty operate through established channels. Under the real-options mechanism, firms defer irreversible projects when the outlook is clouded, as waiting is cheaper than committing to a potentially costly mistake.[119] Households also display caution, postponing the

[119] Bernanke (1983). Irreversibility, Uncertainty, and Cyclical Investment. Quarterly Journal of Economics 98(1), 85-106.

purchase of durable goods coupled with precautionary savings that dampen consumption growth.[120]

The uncertainty-driven investment mechanism described above is now visible in the prospective regulatory portfolio. Where compliance obligations are uncertain in scope or timing, firms respond through delay and under-investment. That is precisely the channel through which the AI regulatory bundle is estimated to reduce realisable productivity gains, and why PPWR and CBAM generate large macroeconomic costs when implemented on rigid timelines.

Impact assessments must therefore quantify cumulative compliance costs, risk premia associated with policy uncertainty, small and medium-sized enterprise (SME) versus large-firm disparities, and dynamic scale-up effects, extending beyond static file-by-file analysis to capture cross-border Single Market frictions.[121] Policies that fail to account for these dynamics risk undermining the very transitions they aim to accelerate.

2. Ex Ante Calibration over Ex Post Compensation

Reactive mitigation amplifies fiscal burdens and reduces regulatory predictability. Foreseeable distributional shocks, such as MERCOSUR's projected −7.5% agricultural income decline in exposed regions, necessitated a €45 billion ex-post CAP expansion only after political escalation and stakeholder mobilisation. This pattern suggests governance that systematically underweights concentrated losers relative to diffuse beneficiaries, generating veto points and credibility costs.

The "design now, fix later" logic observed in the retrospective cases is repeating in the prospective agenda. In TPD, measures with large employment and fiscal exposure are advancing without full modelling of labour-market concentration, substitution dynamics, enforcement feasibility, and interactions with excise reform and parallel sustainability rules. In PPWR and CBAM, burdens fall along value chains that are simultaneously subject to other climate and industrial files, increasing the likelihood that adjustment needs will be met ex post through derogations, delays, or compensation.

Institutional reform requires embedding early stakeholder mapping, distributional general equilibrium modelling, and multi-scenario analysis at

[120] Bansal and Yaron (2004). Risks for the Long Run: A Potential Resolution of Asset Pricing Puzzles. Journal of Finance 59(4), 1481-1509.

[121] Letta (2024). Much more than a market.

policy inception. Such ex-ante calibration pre-empts escalation, preserves legislative momentum, and avoids the substantial cost multipliers associated with late-stage concessions, while maintaining policy coherence across the policy cycle.

3. Differentiated Instruments for Structural Heterogeneity

Uniform regulatory approaches generate persistent allocative inefficiencies. CAP's area-based payment regime disproportionately benefits the 1% of largest farms controlling 27% of utilised agricultural land; automotive mandates disregarded the supply chain employment tied to ICE-components, projecting 64.5% sectoral employment contraction before recalibration.

Prospective files reveal the same risk. In TPD, treating heterogeneous product categories under largely uniform restrictions weakens behavioural substitution pathways and can produce worse outcomes than intended. In AI, fixed compliance costs and overlapping obligations disproportionately constrain SMEs, slowing diffusion and reducing aggregate productivity gains.

Tiered, outcome-based regulatory frameworks, calibrated to technological maturity, regional economic structures, firm size distributions, and sectoral input dependencies, reconcile policy objectives with economic realities more effectively. This approach minimises political backlash while delivering superior compliance rates and environmental outcomes, avoiding the one-size-fits-all rigidities characteristic of recent EU regulatory episodes.

4. Policy Sequencing to Reduce Strategic Dependencies

Poor sequencing is costly because it creates a gap between legal ambition and practical delivery. This should be understood as an argument for applying the precautionary principle in a complete way: assessing not only the uncertain harms of action, but also the predictable harms of inaction, and then choosing timelines and instruments that match implementation capacity. When sequencing is wrong, the EU either locks in targets before supply chains and infrastructure can support them, or it keeps approval and authorisation timelines so slow that innovation cannot scale in time to meet competitiveness and resilience goals.

The automotive transition illustrates the first failure mode. The shift to EVs raises dependence on critical raw materials and processing capacity, which can become a vulnerability when diversification options are delayed or

underdeveloped. The transition timeline must be aligned with raw-material access, refining capacity, infrastructure readiness, and the pace at which suppliers can retool without large, concentrated job losses.

Biotechnology and novel foods illustrate the other side of precaution: delay itself can function as a barrier with real economic costs. Where approval timelines are not aligned with innovation cycles, the EU can end up being precautionary in form while slowing the diffusion of productivity-enhancing technologies and constraining the scaling of new food systems. A symmetric application of precaution therefore requires faster, more predictable processes for low-risk pathways, coupled with strong scrutiny where risks are genuinely higher.

The revision of the TPD poses comparable sequencing challenges. If product rules, excise reform, packaging obligations, and sustainability measures move in parallel without clear transition periods and enforcement capacity, the combined effect can exceed what regulators can credibly implement. That is where the precautionary principle and sequencing meet: the EU should test enforceability and behavioural responses early, differentiate risks across product categories, and phase implementation so that rules strengthen youth protection and public-health goals rather than pushing activity into harder-to-control channels.

Policy timelines should therefore be built around practical readiness checks: supply-chain resilience, infrastructure constraints, skills and retraining capacity, enforcement feasibility, and geopolitical exposure. Proper sequencing ensures that EU ambitions reinforce strategic autonomy rather than creating new dependencies or triggering repeated late fixes. The objective an implementable policy, designed so that precaution is applied in a way that reduces risk on both sides of the decision.

Towards a Stability-by-Design model

A "Stability-by-Design" governance embeds these principles from policy inception, delivering predictable regulatory frameworks that restore competitiveness without diluting core objectives.

Conclusion

These regulations pursue legitimate primary objectives, but they also impose a measurable GDP cost; such trade-offs can be acceptable when they are explicit, proportionate, and supported by enforceable design choices rather than accumulated uncertainty and avoidable frictions.

Past EU regulations have generated substantial economic losses. The three retrospective cases, the MERCOSUR trade agreement, automotive transition, and CAP, collectively produce annual average frictional costs equivalent to 0.35% of EU GDP. These losses stem from systematic governance failures manifesting in concrete policy outcomes: a €45 billion CAP expansion from 2028 to 2034 to compensate for predictable agricultural income declines from MERCOSUR liberalisation; a 2035 zero-emission vehicle mandate that required 2025 revision after irreversible sunk investments, having disregarded the sector's 13.8 million direct and indirect jobs, €26.6 billion trade surplus, and projected 64.5% employment contraction due to overlooked supply-chain reconfiguration; and CAP's uniform area-based instruments that embed an estimated €27 billion in annual average GDP loss within a structurally heterogeneous sector.

Prospective regulations threaten even larger losses across multiple domains. Restrictive baseline scenarios for five major files, TPD3, AI regulation, PPWR, CBAM, and Biotechnology and Novel Foods, project annual average GDP losses of €159 billion over 2026-2030, alongside 419,000 jobs at risk and €36 billion in annual average investment shortfalls. TPD3 accounts for the largest share of preventable annual losses. A prohibition-oriented TPD3 generates €48 billion in annual net economic losses, of which €24 billion in tax revenue losses, while a calibrated, risk-differentiated approach, preserving domestic value chains and enabling substitution towards lower-risk alternatives such as HTPs and e-cigarettes, would produce a €32 billion annual average net gain, of which €16 billion in tax revenue.

Better governance can recover most losses through calibrated execution. Proportionate, predictable frameworks across these initiatives prevent €125 billion in annual average GDP losses and save 241,000 jobs and €28 billion in average investment per year, avoiding two-thirds of GDP and investment losses while reversing nearly half the employment impact. These findings underscore the importance of a Stability-by-Design governance, institutionalising early stakeholder alignment, differentiated instruments calibrated to sectoral

heterogeneity, coherent sequencing of interdependent policies, and pre-mandate institutional coordination. This paradigm prevents repetition of past governance failures while averting massive prospective costs, most starkly illustrated by TPD3.

European Policy Innovation Council

About EPIC

EPIC is a thinking movement that combines the research capacity of traditional think tanks with the community engagement and mobilisation of political movements. By blending classic initiatives such as policy papers and conferences with innovative digital formats and on-site tours, EPIC is building a large community of policymakers, industry leaders, experts, activists, and influencers in Europe. Together, we aim to become Europe's first public policy influencer, shaping the future of competitiveness, sustainability, and democratic resilience.

Transparency and Legal Notice

EPIC is a nonprofit registered under Belgian law as an ASBL (BE.1016.989.669) and the EU Transparency Register (REG 683253994641-35). All opinions and publications represent the views of the respective authors and do not necessarily reflect the positions of EPIC or any affiliated organizations or individuals.

Contact Information

European Policy Innovation Council (EPIC) asbl
Rue du Chatelain, 8, Box 4
1000 Brussels, Belgium

2026 © European Policy Inovation Council

www.thinkepic.eu

2026 © European Policy Inovation Council