

Then there is Galileo, the EU's vanity project principally being done to outdo the Americans and their satellite navigation system. Galileo involves multiple rocket launches to put satellites in space at vast cost, to duplicate a system that already exists and is freely available. The environmental impact of all the chemical rocket launches required must be incalculable.

What about the EU's catastrophic failure to manage Europe's fishing waters? In a recent speech to Parliament, I demanded that the control of fisheries be returned to the nation states, such is the failure of the European Commission in this sector. Fishing stocks have been destroyed and many fishermen driven out of the business. The discard problem is still with us as the EU continues to move at a ponderous pace to end it. Countless tonnes of dead fish have been thrown back into the sea over many years.

European fishing fleets have also been hoovering up the fish in North African waters. The EU's *modus operandi* is to bully a North African state, such as Morocco, into signing up to a trade deal, which includes giving EU fishing fleets full access to their waters. Local fishermen end up with either no fish or having to venture much further out to find any.

Despite the contradictory examples above, the EU is obsessed with the unproven man-made global warming theory. This has led to an explosion in the production of biofuel crops, which are supposed to reduce greenhouse gas emissions but do exactly the opposite. Most biofuels produce more greenhouse gases than ordinary petrol or diesel. This happens because of the application of

nitrogen fertilisers to these crops, which emit nitrous oxide and because of the worldwide destruction of huge amounts of grassland, wetland and forests, stimulated by this market.

The EU has also been a major impediment to the development of GM crops, refusing to do anything to encourage research and blocking many efforts to trial these crops in the member states. The irony being that genetically modified crops designed to resist insects and weeds can increase yields while dramatically reducing the need for fuel and all pesticides.

The EU is a major threat to the environment through misguided policies that are forced on the member states. The EU's recent ban on neonicotinoids, based more on green paranoia than scientific research, will have the effect of lowering crop yields in a hungry world and increasing the use of alternative but more environmentally hazardous products to protect crops.

If the UK were to leave the EU, a large part of the funding for this dangerous nonsense would be removed. The UK would also be free to pursue agricultural and environmental policies better suited to our own needs and infinitely better for the environment. **ES**

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Should harmonisation or subsidiarity prevail for the regulation of shale gas in the EU?

Frederick van Mierlo considers whether the examples of the UK and the Netherlands' regulatory attitudes to shale gas exploration should be extended throughout Europe.

The US shale gas revolution has certainly not gone unnoticed in a Europe that is increasingly dependent on energy imports. In the US, shale gas has proved to be a game-changer of epic proportions, revitalising heavy industry and providing a cheap and secure domestic source of energy. In Europe, Denmark, Germany, Hungary, Lithuania, the Netherlands, Poland, Romania, Spain, Sweden and the UK have all expressed an interest in pursuing shale gas¹. Following the lifting of a temporary moratorium in the UK, the gas exploration company Cuadrilla looks set to make the UK one of the first to get shale gas flowing. The Dutch may well follow suit and are likely to vote on whether to lift their own moratorium in September or October.

FRACKING RISKS

A catalogue of environmental concerns over water pollution, climate change and seismicity has accompanied the interest in shale gas. If we put aside the debates and hyperbole over resource potential and economic viability, environmental risk can be seen to be at the epicentre of fracking². Fortunately, extensive environmental legislation of EU origin is already in place that is applicable to shale gas³. These include, amongst others, the Water Framework Directive, the Mining Waste Directive, the Environmental Impact Assessment Directive, the Strategic Environmental Assessment Directive and the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

In 2012 the European Commission undertook a series of research investigations to examine the impact of shale gas on climate change, energy markets and the

environment. The Environment Directorate-General of the European Commission (DG Environment) published a report that found the existence of what it considers to be significant gaps in the legislative framework. Discussions between DG Environment, DG Energy and DG-CLIMA (for climate action) on whether to initiate a proposal and what legislative instruments to use will shape the nature of regulation in Europe.

ASSESSING THE IMPACTS

Having completed the research phase, the European Commission is now at the mandatory impact assessment phase, which includes a series of steps that examine the economic, social and environmental consequences of a potential initiative⁴. The outcome of this is not yet certain, but three courses of action are being considered.

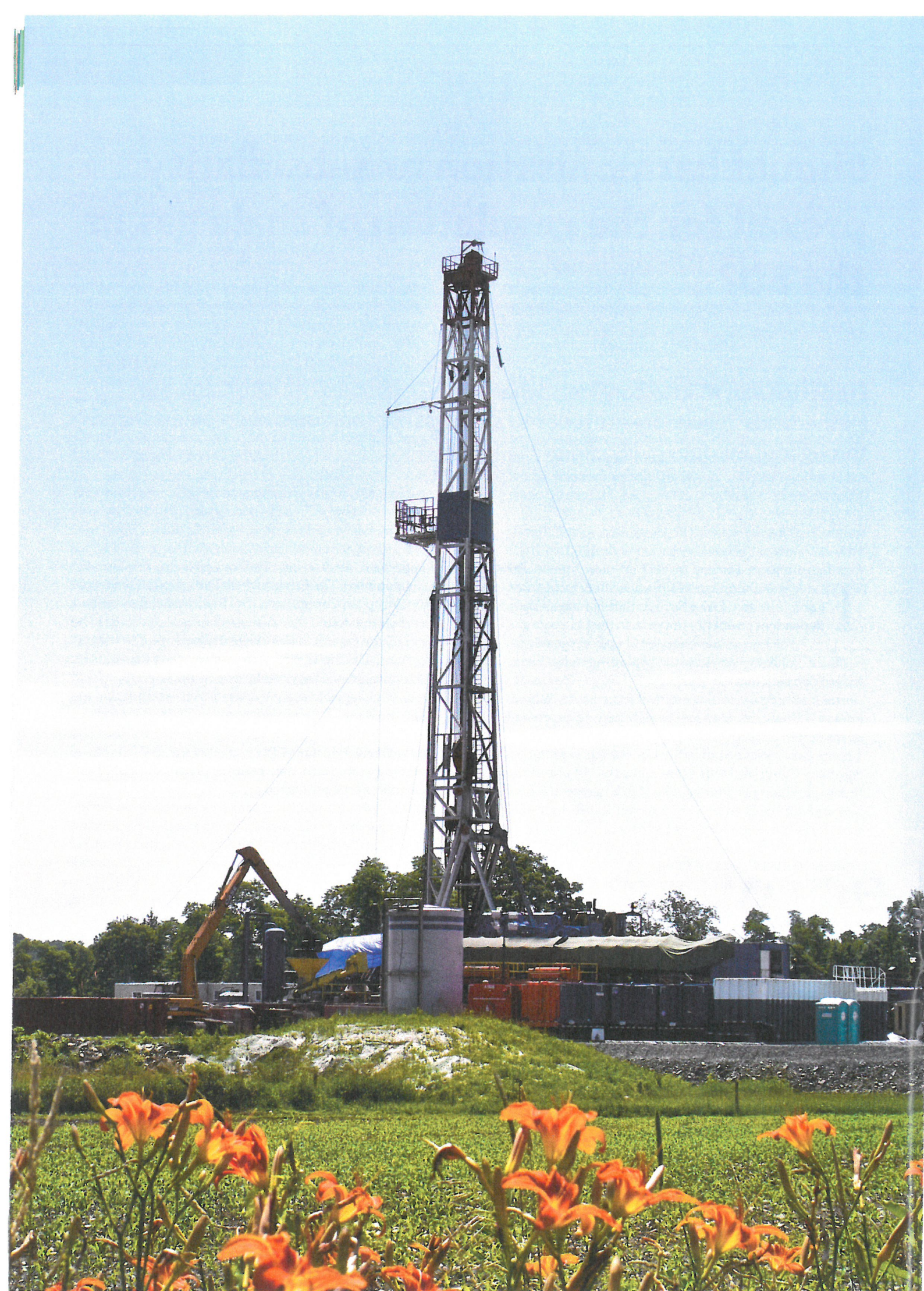
The first is that the Commission decides the environmental risks can be adequately managed using soft instruments such as guidelines on how to use existing legislation. The second is that aspects of existing legislation, such as Annex I of the Environmental Impact Assessment Directive, are amended. Annex I includes a threshold of 500,000 m³ per day of natural gas production, below which an environmental impact assessment is not required. DG Environment believes that flow rates from shale gas in Europe may not be high enough to trigger a mandatory assessment⁵. However, opening up existing legislation to co-decision means that the Council of Ministers and European Parliament may attempt to amend other Articles and Annexes in a way that is not favourable for the environment. Both the UK and the Netherlands have previously expressed their desire to review the existing powers of the EU and

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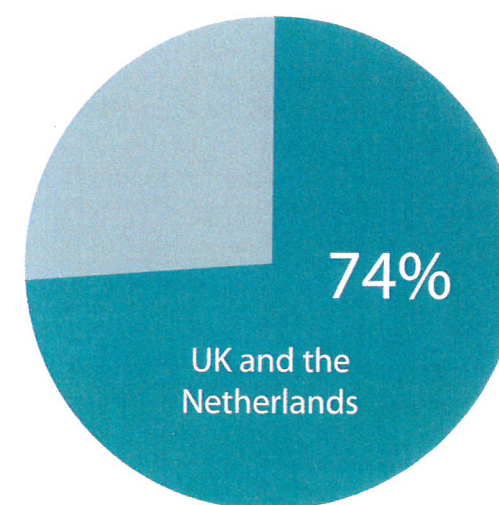
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prevent so-called 'competence creep'. A third option available to the Commission would be to propose a new unconventional fossil fuels directive that clarifies or extends existing law. Any new legislation would have to take into account the legislative procedures of the EU, European Parliament elections in 2014 and a change in the college of commissioners, meaning that a new directive would not be fully transposed into national law until 2018 or 2019.



▲ The UK and Netherlands make up 74% of total EU gas production.

EC REGULATION

Whether new legislation from Brussels emerges depends to a large extent on whether the objective of environmental protection regarding shale gas can be better achieved by the EU or by the Member States. From an environmental perspective, action at the EU level could be preferable as it is usually stricter than national law⁶. The Commission cites three key reasons that could justify proposing an initiative for shale gas, an area it does not have exclusive competence for⁷. The **first** is that the environmental impacts of shale gas development are cross-cutting. Fugitive emissions of methane from well sites and the existence of

The clear disjuncture between the UK government and the Commission over which environmental legislation is relevant suggests that clarification, at the very least, is needed.

significant cross-border groundwater aquifers means regulation at the EU level could be appropriate. If, for example, Romania wanted to pursue shale gas near an aquifer shared with Bulgaria, which has imposed a moratorium, issues over environmental protection of a shared resource could prove problematic. The **second** is the 'level playing' argument, as differential national regulations could make it difficult for companies to compete within the internal market. However, the ability to 'gold-plate' legislation with extra requirements during transposition in national law, alongside the fact that permitting and licensing is done by national authorities, means companies will always have to deal on a country-by-country basis. The **third** justification for action at the EU level is that a clarification of how to apply existing law is required. The Commissioner for the Environment, Janez Potočnik, has previously argued that "we need to get a predictable environment to the business sector, because they don't know what they have to comply with"⁸. Even if a new law, perhaps similar to the Carbon Capture and Storage Directive, is not deemed necessary, some policy guidance will be⁹.

MEMBER STATES REGULATION

The environmental risks could equally be left to Member States to regulate. The Subsidiarity Principle (Article 5(3) of the Treaty on European Union) states that only if an objective can be better achieved at Union level should the EU take action. The UK and Netherlands are two Member States that are keen to explore shale

gas potential. Using them as case studies, it is possible to show that they do not require EU help. Both are experienced gas producers, representing a combined 74 per cent of total EU production¹⁰. Since the 1970s the UK has extensively developed its North Sea oil and gas reserves. Similarly, the discovery of the Groningen gas field catapulted the Netherlands into becoming the EU's second-largest producer.

Production of conventional gas in both countries is predicted to decline steeply^{11,12}. Shale gas could soften the decline, providing jobs, much-needed income for the exchequer and, if it replaces coal, a cleaner source of energy. If the UK and the Netherlands are able to show that shale gas can be extracted safely and with low environmental impacts, they could provide a blueprint for successful environmental governance.

In an online document, the UK Department for Energy and Climate Change (DECC) outlines 11 EU Directives and Regulations that it believes are applicable to the onshore hydrocarbon industry¹³. By contrast, the research

carried out for DG Environment states that 19 pieces of legislation are relevant. In fact the Commission and the UK only agree on five pieces of legislation that apply to shale gas. Notable exceptions from the UK document include the Mining Waste Directive, the Waste Framework Directive, the Noise Directive, the Air Quality Directive and REACH. The clear disjuncture between the UK government and the Commission over which environmental legislation is relevant suggests that clarification, at the very least, is needed.

Despite the confusion, the British and Dutch governments are taking environmental protection very seriously. The UK recently finished its own research, published in a joint report by the Royal Society and the Royal Academy of Engineering. The Office for Unconventional Oil and Gas has also been set up to clarify the legal situation. The Strategic Environmental Assessment Directive can be circumvented to avoid the requirement to carry out an assessment if a government does not devise a national 'plan or programme'. However, in the UK a strategic environmental assessment is compulsory for

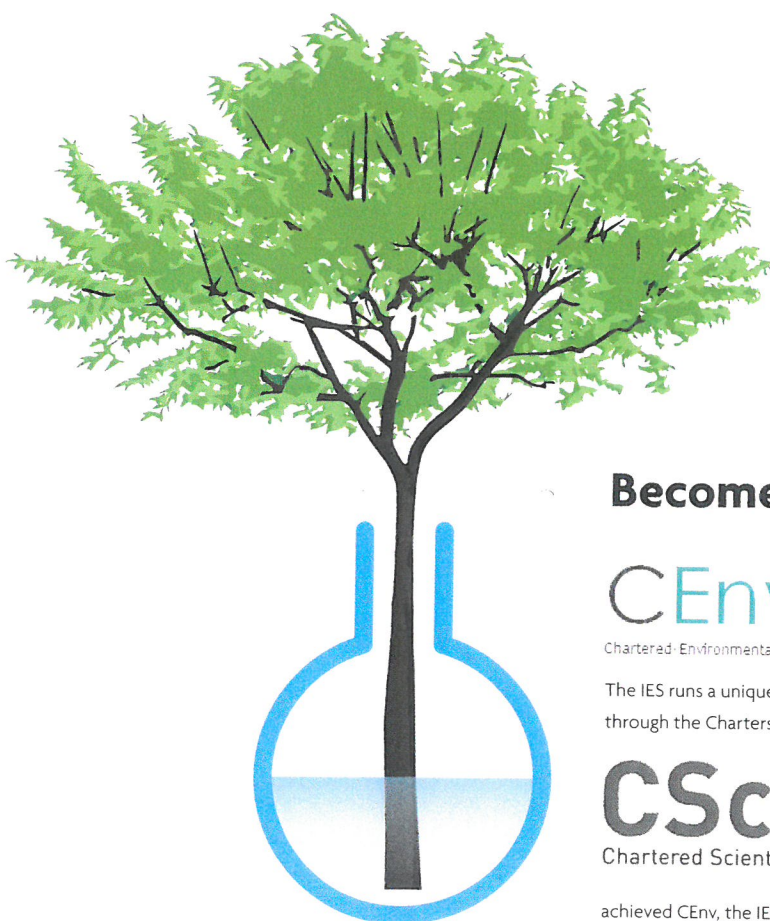
oil and gas licensing rounds. Additionally, Cuadrilla is now undertaking an environmental impact assessment for its Blackpool site.

Meanwhile, in the Netherlands, a two-year study into the impacts on nature, the environment and humans will be published in late August (at the time of going to press the study was unpublished). The Environmental Management Act consolidates EU environmental legislation into one law. Under the 2002 Mining Act, the protection of safety and the environment is required, including the systematic management of deposits of minerals and limiting damage caused by soil movement. The General Provisions of Environmental Law 2008 further require the environment to be taken into account in the licensing phase. These examples show that Member States and good industry practice can fill gaps in EU legislation.

CONCLUSION

Whether all Member States can be trusted to implement and enforce good environmental governance is not clear. The UK and Netherlands have exemplary records when it comes to transcribing EU environmental law, while other Member States require prodding¹⁴. Based on the UK and Netherlands, further harmonisation may not be necessary. However, the EU is a club of 28 rather than two. Smaller Member States lacking knowledge and experience of gas production, or lacking human resources and capital, may need more help from the EU to fully protect their environment. Deciding whether Member States should retain competency or if the EU should harmonise legislation is also an inherently political question. The European Commission now has the unenviable task of balancing contrasting concerns and aims for the entire Union. **ES**

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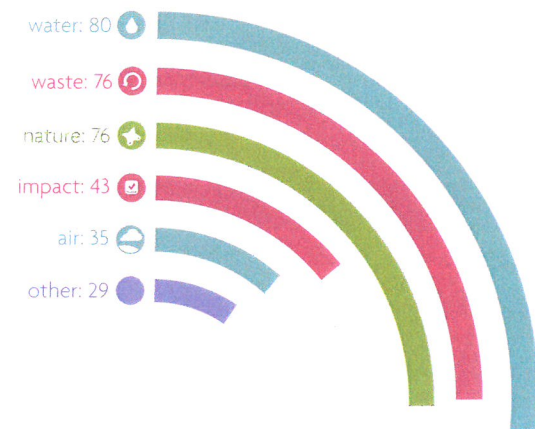
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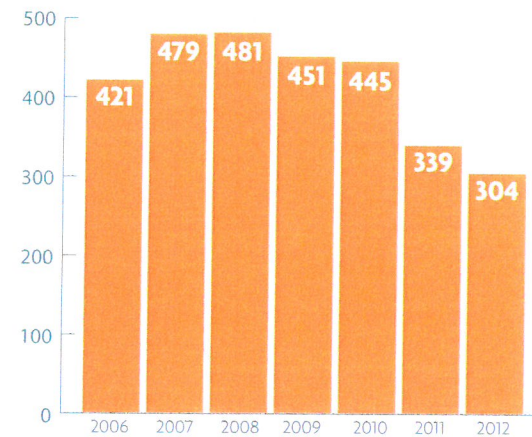
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EU environmental legislation in numbers

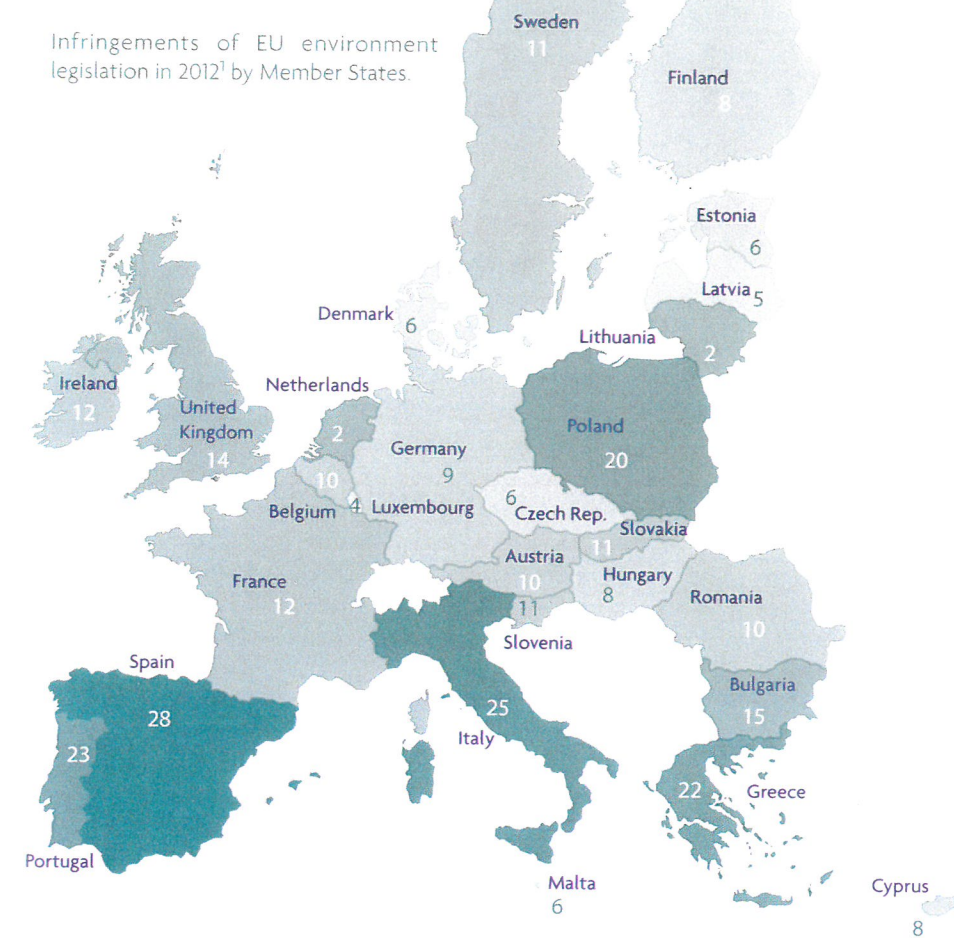


There were 304 infringements of EU environmental legislation in 2012¹.

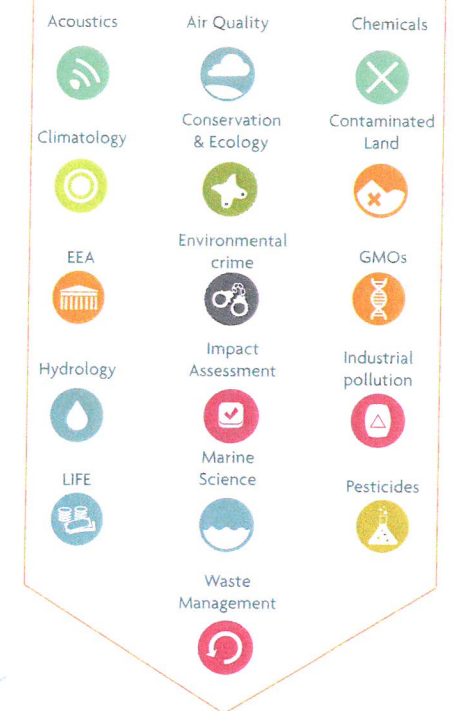


The number of infringements of EU environmental legislation has been in decline since 2008¹.

Infringements of EU environment legislation in 2012¹ by Member States.



Timeline key



Timeline

Environmental legislation passed by the EU



SOURCES

1. Figures released by DG Environment accurate up to 19th November 2012. [Accessed March 2013]