

## POLICY BRIEFING:

# Future Proofing Policy for Innovation

### Introduction

Law and policy are continuously evolving – at national, EU and international level. New laws and policies are adopted and existing ones evaluated and revised. As law and policy is developed a range of different analyses may be undertaken. At EU level, for example, new law may be subject to Impact Assessment and existing legislation subject to different types of ex-post review. In almost all cases these analyses consider the need for new law and policy because new problems have arisen, old problems have changed or simply our understanding of issues has changed (e.g. due to new scientific information). Law and policy are not static – they need to evolve.

As a result, it is important to think about how to formulate law and policy in response to new developments. This means not only addressing an issue as it presents itself today, but also recognising that issues evolve and so draft law and policy that can accommodate further change. It is important to ensure that new law and policy is not out of date before the ink is dry on the paper.

There is currently much consideration of policy and law in relation to tackling the problems of plastics and, specifically, on the possible role of bio-based, biodegradable and compostable plastics. This is fast moving area – with new materials being developed and new information emerging on the impacts and roles of different plastics. As a result, there is a particular challenge to devise policy and law on plastics which is not quickly overtaken by innovation.

### The Innovation Principle in EU law making

The European Commission has highlighted the importance of EU law supporting innovation [1]. However, as the concept of the “innovation principle” was elaborated (including by other EU institutions), some indicated that it could counter-balance the precautionary principle, which was felt by some to impede the adoption of novel activities or materials. Indeed, it has been suggested that there could be some equivalence between the two principles. However, legally this is far from the case. The precautionary principle is enshrined in the EU Treaty. The innovation principle is a concept promoted by some EU institutions. There is no equivalence.

However, it is important to look back to the European Commission’s initial use of the innovation principle – to ensure “that whenever policy is developed, the impact on innovation is fully assessed”. This is simply an objective to examine the impacts on innovation and, indeed, this is central to the purpose of this briefing.

A recent evaluation[1] of the innovation principle for the Commission highlighted its importance, but also its limited application. In particular, it stressed problems arising from “the lack of awareness among EU officials and stakeholders, and the lack of adequate skills among those that are called to implement the innovation principle”.

In formulating policy and law on plastics, what impacts would there be on innovation?

## Bio-based, biodegradable and compostable plastics

The importance of designing law and policy that is future proof and supports innovation is particularly evident when considering bio-based, biodegradable and compostable plastics. These materials are not a single type of plastic, but the terms encompass a range of materials with different sources and properties. Bio-based plastics can be derived from a variety of different biological material sources. Biodegradable and compostable plastics degrade at different rates in different conditions. These materials include some very different polymers, including polylactic acid (PLA), polyhydroxyalkanoates (PHA), polybutylene succinate (PBS), and starch blends. Some materials are recent and their properties (including roles of different additives) are still being researched. New polymers may be produced in future.

When it comes to considering law and policy in relation to bio-based, biodegradable and compostable plastics, it is important to ensure that they reflect the fact that there are many different materials and many different behaviours.

However, law and policy need to do more than this. The list of polymers (and products made from them) of these materials now and our understanding of their behaviour in different environments is very unlikely to be the same in a few years' time. Research is taking place on new polymers, the role of different additives, new products, performance in the environment, and more. Furthermore, other important conditions may change (and our understanding of these may change), including technologies for waste management/circular economy, consumer behaviour, etc. It is, therefore, essential that law and policy relating to these materials is future proofed.

## Future proofing law and policy for bio-based, biodegradable and compostable plastics

Future proofing law and future proofing policy have similar approaches, but particular care needs to be taken in setting out law in particular. Policy statements guide action, but are not binding. Therefore, if situations change and a policy statement is out of date, it is possible to depart from it. Law is binding, even if it is out of date.

Let's take an example. There is much research currently on the behaviour of biodegradable plastics in the open environment. There are concerns about how well some polymers may degrade, for example, in the marine environment (to an acceptable timetable). As a result, some stakeholders have argued that policy should state that biodegradable plastics should not be used where they could reasonably enter the marine environment. What are the future proofing implications of such a view for policy and law?

For a policy statement, such a situation is not difficult to set out in a way which is future proofed. Rather than state that “biodegradable plastics should not be used where they could reasonably enter the marine environment”, a future proofed policy could state “biodegradable plastics based on polymers currently available should not be used where they could reasonably enter the marine environment” (or something similar). This would present a clear statement, but recognise change is possible.

For law, a different approach is needed. Statements like those for policy are not appropriate in law – they are not specific enough. Further, leaving the door open to future developments as in the policy statement is not interpretable in law – who would make a decision based on change? Law requires a different approach. The concern over biodegradable plastics in the marine environment is on whether they degrade and how quickly. Law can readily state that biodegradable plastics entering the marine environment must meet certain conditions (e.g. degradation within a certain timescale or adherence to a specific standard). If no materials currently meet this requirement, that is fine and would effectively be a ban. However, if new materials were to be developed that do meet those conditions, the law would allow their use and the law would still be relevant.

Future proofing law and policy on these materials is important at EU level, not least to ensure coherence in the EU’s overall policy framework. Within Horizon 2020 (and other funding), the EU has adopted a policy to support research and innovation into bio-based, biodegradable and compostable plastics and which has received significant funding. As a result, the EU is a major engine for innovation in this area. It therefore is important that its environmental, product and other policies reflect the fact that there is innovation and are designed in such a way that, firstly, these policies are not rapidly outdated by that innovation and, secondly, that they do not stifle that innovation. Indeed, if law is well framed (as in the example above), it can act as a spur to innovation.

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[1] 2016 Commission Staff Working Document on “Better Regulation for Innovation-Driven Investment”.

[2] DG Research 2019. Study supporting the interim evaluation of the innovation principle. Final report.

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