



Bill Digest

Microbeads (Prohibition) Bill 2019

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Abstract

The *Microbeads (Prohibition) Bill 2019* proposes to ban the manufacture and placing on the market of certain cleaning and cosmetic products containing plastic microbeads as well as imposing restrictions on the disposal of substances containing microbeads. The aim of the Bill is to prevent plastic microbeads entering the marine environment, thereby reducing the problem of marine litter. Further restrictions on microbeads are anticipated from the EU over the coming years.



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Summary

The [Microbeads \(Prohibition\) Bill 2019](#) (the Bill) was published on 18th June 2019 and is scheduled for second stage in Dáil Éireann on Thursday, 20th June 2019. The Department of Housing, Planning and Local Government is the responsible Department for the Bill.

The Bill aims to respond to the growing contamination of the world's marine ecosystems with plastics by eliminating a primary source of plastic microbeads. To achieve this aim the Bill proposes to ban certain cosmetic and cleaning products containing intentionally added plastic microbeads. This will remove the risk of these plastic microbeads being washed down drains where they eventually end up either in sewage sludge (and are generally then spread on agricultural land as a fertiliser) or in our marine ecosystems. Specifically the Bill proposes the following:

Without significant action, the oceans are expected to contain more plastic than fish, by weight, by 2050.

To make any person who:

- **Manufactures or places on the market certain cosmetics and cleaning products containing plastic microbeads; and/or**
- **Disposes of substances containing plastic microbeads down the drain or directly into any watercourse:**

guilty of an offence.

What is a microbead?

While there are varying definitions of microbeads across different jurisdictions, this Bill defines a microbead as a solid plastic particle that is not water soluble and is no more than 5mm at its widest.

What type of products will this Bill affect?

The Bill aims to ban certain 'rinse off' cosmetic and cleaning products that contain intentionally added microbeads such as wash-off facial exfoliators and abrasive household cleaning products.

Are microbeads really that prevalent?

Yes - a typical exfoliating shower gel can contain roughly as much plastic material in the gel itself as in its packaging and, according to the UN, there are as many as 51 trillion micro-plastic particles in the seas, 500 times more stars than in our galaxy.

The Bill also provides for a number of exemptions from the ban (medical products, sunscreen products, products for the purpose of research and education and products in transit through the State). It identifies the Environmental Protection Agency (the Agency) as the competent authority and sets out the details on authorised persons, prosecution of corporate bodies and penalties.

The global problem of marine litter has received international attention in recent years. Plastic makes up approximately 80% of all marine litter. Plastic persists in the marine environment for a long time and can break down into secondary micro-plastics. While research is ongoing, there is a growing body of evidence that micro-plastics are having negative impacts on marine ecosystems. While microbeads make up only a small amount of the overall micro-plastic problem in our oceans, they are ready-made and virtually impossible to remove once in the seas. As well as this, they are an avoidable form of marine pollution and are not necessary to humans. Micro-beads have been found in human water supplies and food chains.

The European Commission completed [A European Strategy for Plastics in a Circular Economy](#) in 2018, which commits to tackling plastic pollution, including micro-plastics such as plastic microbeads. The Bill is in line with the European Plastics Strategy, the [EU's Circular Economy Strategy](#), the Marine Strategy Framework Directive, and objectives on marine litter under OSPAR (the Convention for the Protection of the Marine Environment of the North-East Atlantic).

The European Chemicals Agency (ECHA) has made proposals on the restriction of the intentional use of micro-plastics in certain products. This proposal will be introduced under the REACH Regulations (key EU chemicals legislation) and all Member States will have to transpose them. However, as the proposals are not expected until 2020, a number of Member States have already introduced national legislation in this area with more planning to do so.

Ireland has voiced its support for an EU-wide ban on plastic microbeads since 2015. In 2016, Senator Grace O'Sullivan introduced a private members bill (PMB), [Micro-plastic and micro-bead pollution prevention Bill 2016](#) which was rejected in the Dáil. Deputy Seán Sherlock subsequently introduced a similar bill, [Prohibition of Micro-plastics Bill 2016](#), which was read a second time in the Dáil and underwent detailed scrutiny by the Committee on Housing, Planning and Local Government in 2017 and 2018. The Committee noted in their [report](#) (July 2018) on the scrutiny of the PMB that the principles of the PMB were broadly supported. However, as a result of the Government commitment to publish this legislation, the PMB was withdrawn.

The Government published the [General Scheme of the Prohibition of Certain Products containing Plastic Microbeads Bill 2018](#) in November 2018. The Committee on Housing, Planning and Local Government undertook pre-legislative scrutiny in 2019 and published a report with their findings in May, [Report of the Joint Committee on the General Scheme of the Prohibition of Certain Products containing Plastic Microbeads Bill 2018](#). In their report, the Committee recommended that the Bill expand its scope, queried why sunscreen products are exempt from the ban and noted that issues around definitions of microbeads had been resolved.

The key impacts from the Bill will be the protection of the marine environment from plastic microbead pollution. There will also be social and economic impacts such as the promotion of higher standards among the public for pollution and potential increased costs to some manufacturers. As well as this, the Bill will require a derogation from EU single market rules due to

the implications from the proposed ban on the free movement of certain products containing plastic microbeads.

Introduction

This Bill Digest is divided into **nine sections** as follows:

- **Section 1:** Irish policy background
- **Section 2:** International and EU policy background;
- **Section 3:** Marine litter and micro-plastics;
- **Section 4:** Pre Legislative Scrutiny (PLS) on the General Scheme of the Bill ;
- **Section 5:** Principal provisions of the Bill;
- **Section 6:** Regulatory Impact Assessment of the Bill;
- **Section 7:** Implications of the Bill
- **Section 8:** International comparisons of similar legislation; and
- **Section 9:** Alternatives.

Table 1: Overview of the provisions of the Bill

The substantive elements of the proposed legislation are summarised below:

Section	Title	Effect
1.	Interpretation	<p>This section provides for the definition of terms used in the Bill.</p> <p>Of particular importance to the function of the legislation is the definition provided of a “microbead”.</p>
2.	Prohibition	<p>This section provides for a ban on the manufacture, or placing on the market, of a cosmetic or a cleaning product, that contains microbeads. It provides that a breach of this ban constitutes a criminal offence.</p> <p>The section also provides that it is a defence for a defendant to show that he or she took “all measures reasonably necessary” to prevent a contravention of the offence.</p>
3.	Exemption	<p>This section provides for certain exemptions from the ban contained in section 2. They include medicinal products, sunscreen products, products in transit through the State, materials used for education or for scientific research by an approved body, and certain products as may be specified by regulations by the Minister.</p>
4.	Disposal of microbeads	<p>This section provides for a further offence of the disposal of microbeads.</p> <p>The offence provides that a person shall not dispose of a substance containing microbeads in “the maritime area or inland waters of the State” or in any drain or wastewater treatment plant, or on the High Seas from an Irish ship.</p>
5.	Powers of authorised persons	<p>This section provides for the powers of authorised persons to investigate and to enforce the provisions of this Bill.</p> <p>Their powers include inspecting a premises at which they suspect a trade or business using microbeads is being carried out, to inspect and seize documents, and to require information and assistance from persons found at such premises.</p>

		The section provides that it is a criminal offence to obstruct an authorised person in the conduct of his or her duties, or to fail to comply with a request from an authorised officer under this section.
6.	Offences by bodies corporate	This section provides a means by which an officer of a corporation that has committed an offence under the Bill can themselves also be held liable for the same offence as their company, arising out of the same conduct.
7.	Penalties	This section provides for the maximum penalties available in respect of an offence under this Bill.
8.	Prosecution of offences	This section provides that the Environmental Protection Agency (the Agency) has the power to bring summary proceedings in respect of an offence under this Bill. It also provides that a convicted person will bear the costs of the Agency in bringing such a prosecution.
9.	Information and reports, and review of the operation of the Act	<p>This section empowers the Minister to require the Agency to provide him or her with information or a report on a matter.</p> <p>It also empowers the Minister to require the Agency to conduct a review of the operation of the Act within such period as he or she specifies.</p>
10.	Expenses	This section provides that the expenses incurred by the Minister in the administration of this Act be paid, to such extent as is sanctioned by the Minister for Public Expenditure and Reform, out of monies provided by the Oireachtas.
11.	Short title, commencement and collective citation	<p>This section provides that the Bill can be cited as the <i>Microbeads (Prohibition) Bill 2019</i>.</p> <p>This is a standard provision. If enacted, the Bill may be commenced by ministerial order and different provisions can be commenced at different times.</p>

1. Irish policy background

The need to legislate for a ban on plastic microbeads

Due to the growing international concerns over plastic pollution in marine ecosystems, Ireland has voiced its support for an EU-wide ban on the manufacture and supply of certain products containing plastic microbeads since 2015. The Government decided that it would show its commitment to this by exploring the possibility of introducing national legislation and notified the European Commission of its intent. In the meantime, the European Plastics Strategy was completed and work commenced at EU level to introduce a ban through the REACH Regulations. Due to the longer transition period anticipated under the REACH Regulations, the Government continued with its plan to develop national legislation while also supporting the earliest possible implementation of an EU-wide ban.¹ Further detail on the Plastics Strategy and the REACH Regulations are provided in Section 2, of this Bill Digest

Policy objectives

The policy objectives for introducing national legislation to ban certain products containing plastic microbeads include to:

- Reduce the levels of plastic microbeads entering our sewerage network and watercourses and reaching the marine environment by removing them from products which would have been rinsed down the drain;
- Reduce the levels of plastic microbeads in sewage sludge from wastewater treatment plants;
- Reduce the risk of contamination of soils and groundwater from sewage sludge containing plastic microbeads which is spread on agricultural land as a fertiliser;
- Reduce marine pollution and protect aquatic fauna against the potential risks of consuming microbeads;
- Protect human health against potential contamination of seafood and drinking water with plastic microbeads;
- Assist with reaching the aims of the Marine Strategy Framework Directive (MSDF) to achieve good environmental status of marine waters by 2020;
- Meet some of the objectives of the OSPAR Regional Action Plan on Marine Litter; and
- Complement future proposals for an EU-wide ban on certain products containing plastic microbeads.

Further information on Ireland's international obligations under OSPAR and on the environmental risks associated with plastic pollution are set out in Sections 2 and 3 of this Bill Digest respectively.

¹ DHPLG, 2018. *Draft Regulatory Impact Assessment (RIA) - Prohibition of Certain Products containing Plastic Microbeads Bill 2018* [online]. Available at: https://www.housing.gov.ie/sites/default/files/public-consultation/files/draft_regulatory_impact_assessment_0.pdf [accessed on 18.06.2019]

Private Members Bills (PMBs)

While there is no existing corresponding legislation to the Bill, two private members bills (PMBs) proposing to ban the sale and manufacture of certain products containing micro-plastics were published in 2016 which contributed to the development of the Bill. Senator Grace O'Sullivan introduced the [*Micro-plastic and micro-bead pollution prevention Bill 2016*](#) in Seanad Éireann on 27th October 2016. This Bill proposed to prohibit the sale or manufacture of products containing plastic microbeads and to monitor and report on levels of micro-plastic and microbead pollution of the Irish environment. The PMB was rejected by Fine Gael and Fianna Fáil. Deputy Seán Sherlock subsequently introduced the [*Prohibition of Micro-plastics Bill 2016*](#) in Dáil Éireann on 29th November 2016. This Bill proposed to prohibit the manufacture, sale and import of any cosmetic product containing micro-plastic as a raw material. Deputy Sherlock's PMB passed second stage and was referred to the Joint Committee on Housing, Planning and Local Government by the Dáil on 4th May 2017. The Committee subsequently undertook detailed scrutiny of the Bill and published their [*Report on scrutiny of the prohibition of micro-plastics Bill 2016*](#) in July 2018. The main observations on Deputy Sherlock's Bill from the Committee were:

- There is broad support for the principle of the Bill;
- There is action across Europe to implement a similar type ban across Member States;
- The scope of the Bill is too narrow;
- Amendments should be included to broaden the scope of the Bill in an effort towards a national plan to combat marine litter;
- A better definition of micro-plastics is needed; and
- The sponsor of the Bill should engage with the Department in relation to similar legislation which the Government is proposing.

The Committee concluded with their recommendation that the Bill should proceed to Third Stage consideration, and that the sponsor of the Bill, when making amendments, should take account of the Committee observations.

However, based on the promise from Government to publish its own legislation, Deputy Seán Sherlock sought and was granted leave to withdraw his PMB on 21 February 2019.²

2. International and EU policy background

Circular Economy Package

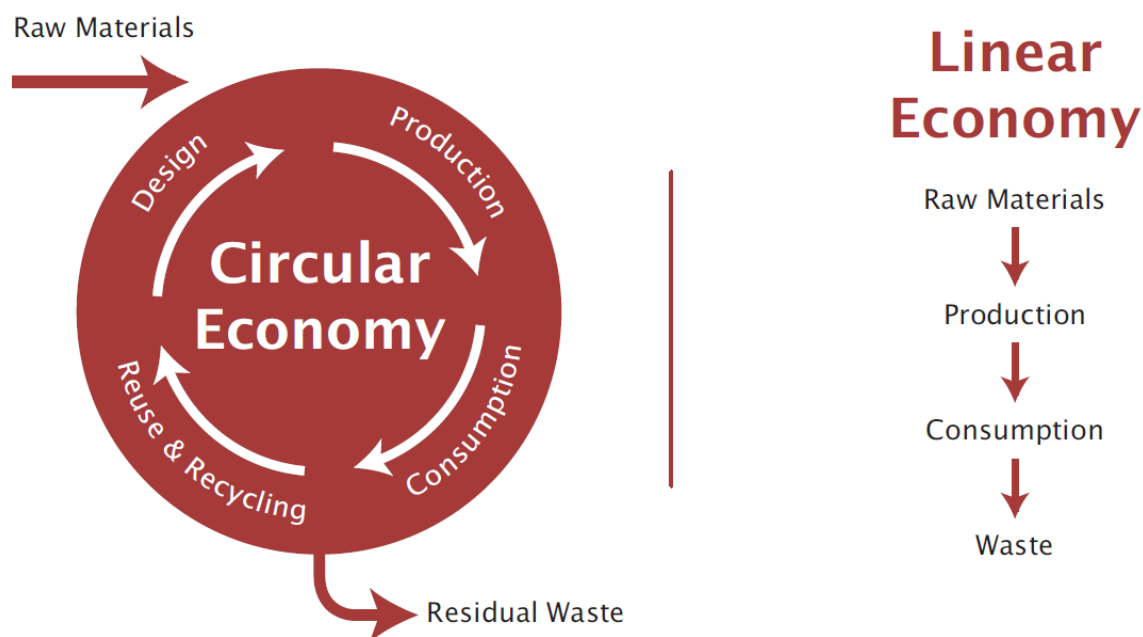
The European Union

In December 2015, the European Commission adopted the Circular Economy Package³. The circular economy involves a shift away from the old linear economy of "take, make and dispose"

² <https://www.oireachtas.ie/en/debates/debate/dail/2019-02-21/19/>

towards a more circular economy with the aim of boosting competitiveness, fostering sustainable economic growth and generating new jobs. In a circular economy, **waste is reduced to a minimum** and greater emphasis is placed on recycling existing materials and products and re-using, repairing and refurbishing products.⁴ The circular economy package contains an action plan, *Closing the loop* (2015)⁵, together with a series of actions planned for the coming years, as well as four legislative proposals on waste, containing targets for landfill, reuse and recycling, to be met by 2030.

Figure 1: The Circular and Linear Economies



Source: Engineers Ireland (2017) '[The State of Ireland 2017: A Review of Infrastructure in Ireland](#)', p. 52.

One of the key actions under the Circular Economy was for the establishment of a **strategy on plastics in the circular economy**, addressing issues of recyclability, biodegradability, the presence of hazardous substances in plastics, and the Sustainable Development Goals **target for significantly reducing marine litter**.

Roadmap on the Strategy on Plastics in the Circular Economy

The Commission published the [Roadmap](#) on the Strategy on Plastics in a Circular Economy in January 2017. The roadmap highlighted a number of key concerns with plastics as follows:

1. Contribution of plastic waste to the pollution of terrestrial and aquatic environments;
2. High dependence on fossil fuel feedstock for the production of plastic which emits approximately 400 million tonnes of greenhouse gases per year (2012) globally; and

³ European Commission (2015) '[Closing the loop: Commission adopts ambitious new Circular Economy Package to boost competitiveness, create jobs and generate sustainable growth](#)', 2 December.

⁴ Repak (2017) [Annual report 2016](#), October 2017.

⁵ European Commission (2015) '[Closing the loop: Commission adopts ambitious new Circular Economy Package to boost competitiveness, create jobs and generate sustainable growth](#)', 2 December.

3. The low rates of recycling and reuse of plastics across the EU.

European Commission Strategy for plastics in the Circular Economy

On 16 January 2018, the European Commission published a Communication laying out a [*European Strategy for Plastics in a Circular Economy*](#) (hereafter “the Plastics Strategy”). There are many challenges linked to the production, consumption and end-of-life of plastics in Europe and the aim of the Plastics Strategy is to turn these challenges into opportunities by tackling the entire value chain and encouraging innovation, competition and jobs.

Under the Plastics Strategy, the intentional use of **micro-plastics will be restricted**. Specifically relating to micro-plastics, the Plastic Strategy notes the following:

- Plastic makes up approximately 80% of all marine litter. This plastic debris is then transported by marine currents, sometimes over very long distances. It can be washed up on land, degrade into micro-plastics or form dense areas of marine litter trapped in ocean gyres;
- Micro-plastics accumulate in the sea and their small size makes it easy for marine life to ingest them. Recent studies have found micro-plastics in the air, drinking water, and foods such as salt and honey. The potential impacts on human health are not yet fully understood. Further research and monitoring is needed;
- It is estimated that, across the EU, a total of between 75,000 and 300,000 tonnes of micro-plastics are released into the environment each year;
- It is recommended that innovative solutions to prevent micro-plastics from reaching the seas are developed. It is important to better understand their origin, routes of travel, and effects on human health; and
- Several EU Member States have notified the Commission of draft laws to ban micro-plastics in certain cosmetics. The Council has called on the Commission to take measures on micro-plastics, especially from cosmetics and detergents.

Section 4 of the Strategy also included a segment on *The rising problem of micro-plastics* as follows:

“Micro-plastics are intentionally added to certain product categories (such as cosmetics, detergents, paint), dispersed during the production, transport and use of plastic pellets, or generated through wear and tear of products such as tyres, paints and synthetic clothes.

Micro-plastics intentionally added to products represent a relatively small proportion of all those in the sea. However, since they are relatively easy to prevent and in response to public concern, several countries have already taken action to restrict their use, while the cosmetic industry has also taken voluntary action. Bans are under consideration or planned in several Member States and this may lead to fragmentation in the single market. In line with the REACH procedures for restricting substances that pose a risk to the environment or health, the Commission has therefore started the process to restrict the use of intentionally added micro-plastics, by requesting the European Chemicals Agency to review the scientific basis for taking regulatory action at EU level.

More research is needed to improve our understanding of the sources and impacts of micro-plastics, including their effects on the environment and health, and to develop innovative solutions to prevent their dissemination. This can include ways to improve the capture of micro-plastics in waste water treatment plants, as well as targeted measures for

each source. A Cross Industry Agreement for the prevention of micro-plastic release into the aquatic environment during the washing of synthetic textiles is set to develop first proposals on test methods in 2018. For its part, the Commission will consider measures such as labelling and specific requirements for tyres, better information and minimum requirements on the release of microfibers from textiles, as well as measures to reduce plastic pellet losses. Extended producer responsibility schemes can also be envisaged, where relevant, to cover the cost of remedial action. Micro-plastics also need to be monitored in drinking water, where their impact on human health is still unknown.”

European Parliament Environment Committee report

In August 2018, the European Parliament Environment Committee (Envi) published a report, [*Turning plastic wastelands into fields of gold*](#). Written by European Parliamentarian, Mark Demesmaeker, the report recognises the significant negative impact plastic pollution has on the marine environment and supports the Plastics Strategy. It makes a number of calls to the Commission regarding the prevention of plastic waste generation. Specifically in relation to micro-plastics, it states:

The rapporteur believes that the most cost-efficient option is to tackle the use of micro-plastics at source. He therefore calls for a **ban on micro-plastics which are intentionally added** to products, such as for cosmetics and cleaning products, and for which viable alternatives are available. The recent introduction of legislation that bans the use of plastic micro-beads in rinse-off cosmetic products in some Member States, for example the United Kingdom, prove that this is possible.

The rapporteur furthermore calls on the Commission to set **minimum requirements** in product legislation to tackle micro-plastics at source, in particular for textiles, tyres, paints and cigarette butts. He believes that the findings of the MERMAIDS Life+ project⁽⁶⁾, which focused on the mitigation of micro-plastics impact caused by textile washing processes, offers some interesting insights in this regard.

In September 2018, the European Parliament accepted the report by a huge majority.⁶

European Chemical Agency (ECHA) and the REACH Regulations

The [European Chemicals Agency \(ECHA\)](#)⁷ works for the safe use of chemicals. ECHA implements EU chemicals legislation which aims to protect human health, the environment and generate innovation and competitiveness in Europe.

⁶ Roscam Abbing, M., 2018. *The European Parliament wants to ban microplastics in cosmetics*. Beat the microbead [online]. 26 September. Available at: <https://www.beatthemicrobead.org/the-european-parliament-wants-to-ban-microplastics-in-cosmetics/> [accessed on 18.06.2019]

⁷ Please note that unfortunately the ECHA website regularly does not work and as such, the L&RS were unable to provide links to ECHA publications referenced in the footnotes or to search the website for relevant information.

EC Regulation No. 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals⁸ or the **REACH Regulation** is the key piece of European chemicals legislation. The overall aims of REACH are to:

- Provide a high level of protection of human health and the environment from the use of chemicals;
- Allow free movement of substances on the EU market;
- Enhance innovation and the competitiveness of the EU chemicals industry; and
- Reduce animal testing by promoting the use of alternative methods of assessing chemicals.

REACH entered into force on 1st June 2007 and replaced a large number of European Directives and Regulations in a single system.⁹ ECHA is the body responsible for the administration of REACH in the EU.

In Ireland, the Health and Safety Authority (HSA) (lead authority), the Environmental Protection Agency (EPA or the Agency) and the Minister for Agriculture, Food and the Marine (formerly Minister for Agriculture, Fisheries and Food) are the designated competent authorities for the enforcement of REACH as set out under the [Chemicals Act 2008](#).

ECHA proposed restriction on intentional use of micro-plastics

Following a request from the European Commission, on 30th January 2019, the European Chemical Agency (ECHA) proposed a ban on intentionally added micro-plastics in cosmetics, detergents, paints, agricultural and industrial products. ECHA stated that an EU-wide ban is necessary. ECHA propose to treat micro-plastics in the same way as persistent bio-accumulative and toxic substances are treated within REACH.¹⁰

Subsequently, on 20th March 2019, ECHA published an Annex XV Restriction Report under the REACH Regulations which proposed a restriction on the intentional use of micro-plastics.¹¹ Under the proposed restriction, upon entry into force, there will be an immediate ban on certain cosmetic products and a phased ban on others such as leave-on cosmetics.

⁸ [Regulation \(EC\) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals \(REACH\) and establishing a European Chemicals Agency, as amended by Council Regulation \(EC\) No. 1354/2007 of 15 November 2007](#)

⁹ Taken directly from the HSE website, *What is REACH* [online]. Available at: https://www.hsa.ie/eng/Your_Industry/Chemicals/Legislation_Enforcement/REACH/ [accessed on 18.06.2019]

¹⁰ Prabhakar, M., 2019. *ECHA proposes to ban intentionally added microplastics*. Beat the microbead [online]. 30 January. Available at: <https://www.beatthemicrobead.org/echa-proposes-to-ban-intentionally-added-microplastics/> [accessed on 17.06.2019]

¹¹ ECHA, 2019. *Annex XV Restriction Report Proposal to restrict intentionally added micro-plastics*. 20 March.

The proposed restriction on the intentional use of micro-plastics provides that polymers^{12,13} (under Paragraphs 1-8 below):

1. Shall not, from (entry into force date [EiF]), be placed on the market as a substance on its own or in a mixture as a micro-plastic in a concentration greater than or equal to 0.01% of its weight (w/w);
2. Sets out definitions for micro-plastic, microbead, particle, polymer-containing particle, solid, gas and liquid;
3. Set out exemptions for biodegradable polymers and those that occur in nature (that have not been modified, other than by hydrolysis);
4. Sets out exemptions for substances for use on industrial sites, medical products (for humans and veterinary uses); certain fertilisers;
5. Sets out further exemptions based on the technical and physical properties of certain micro-plastics;
6. States that paragraph 1 shall apply from:
 - a. EiF for cosmetic products,¹⁴ and other mixtures containing microbeads;
 - b. EiF + 2 years for medical devices¹⁵ and *in vitro* diagnostic medical devices;¹⁶

¹² Paragraphs 1-8 are summaries of Table 3 on page 16 of the ECHA, 2019. *Annex XV Restriction Report Proposal to restrict intentionally added micro-plastics*. 20 March.

¹³ As defined in Article 3(5) of [Regulation \(EC\) No. 1907/2006 concerning REACH](#): polymer: means a substance consisting of molecules characterised by the sequence of one or more types of monomer units. Such molecules must be distributed over a range of molecular weights wherein differences in the molecular weight are primarily attributable to differences in the number of monomer units. A polymer comprises the following:

(a) a simple weight majority of molecules containing at least three monomer units which are covalently bound to at least one other monomer unit or other reactant;

(b) less than a simple weight majority of molecules of the same molecular weight.

In the context of this definition a 'monomer unit' means the reacted form of a monomer substance in a polymer.

¹⁴ Defined in Article 2 (1) (a), *Definitions* of [Regulation \(EC\) no. 1223 / 2009 on cosmetic products](#) as: 'cosmetic product' means any substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours

¹⁵ Defined in [Regulation \(EC\) No. 2017/745 on medical devices](#) as:

Medical device means any instrument, apparatus, appliance, software, implant, reagent, material or other article intended by the manufacturer to be used, alone or in combination, for human beings for one or more of the following specific medical purposes:

- diagnosis, prevention, monitoring, prediction, prognosis, treatment or alleviation of disease,
- diagnosis, monitoring, treatment, alleviation of, or compensation for, an injury or disability,
- investigation, replacement or modification of the anatomy or of a physiological or pathological process or state,
- providing information by means of *in vitro* examination of specimens derived from the human body, including organ, blood and tissue donations,

and which does not achieve its principal intended action by pharmacological, immunological or metabolic means, in or on the human body, but which may be assisted in its function by such means.

The following products shall also be deemed to be medical devices:

- devices for the control or support of conception;
- products specifically intended for the cleaning, disinfection or sterilisation of devices as referred to in Article 1(4) and of those referred to in the first paragraph of this point.

¹⁶ Defined in [Regulation \(EC\) No. 2017/746 on in vitro diagnostic medical devices](#) as:

'*in vitro* diagnostic medical device' means any medical device which is a reagent, reagent product, calibrator, control material, kit, instrument, apparatus, piece of equipment, software or system, whether used alone or in combination, intended by the manufacturer to be used *in vitro* for the examination of specimens, including blood and tissue donations, derived from the human body, solely or principally for the purpose of providing information on one or more of the following:

- (a) concerning a physiological or pathological process or state;
- (b) concerning congenital physical or mental impairments;
- (c) concerning the predisposition to a medical condition or a disease;

- c. EiF + 4 years for 'rinse-off' cosmetic products¹⁷ not already included at Paragraph 6 (a);
 - d. EiF + 5 years for detergents¹⁸ and maintenance products;
 - e. EiF + 5 years for fertilising products¹⁹;
 - f. EiF + 5 years for other agricultural and horticultural uses (including seed treatments and plant protection products); and
 - g. EiF + 6 years for 'leave-on' cosmetics²⁰.
7. From EiF + 18 months, provides labelling requirement for any products exempted from Paragraph 1 on the basis of Paragraphs 4 (a) and 4 (b) or 5;
 8. From EiF + 12 months, provides that any downstream user of any exempted products shall submit information on the product to ECHA and ECHA shall publish a report summarising the information received by 31 March every year.

These restrictions are unlikely to come into force until late 2020 at the earliest. Ireland will then have to transpose the EU REACH Regulation proposals on restricting microbeads into Irish law. This Bill is expected to complement the proposals rather than be superseded by them.²¹

OSPAR Convention to protect the marine environment of the North-East Atlantic

Ireland is a signatory to the OSPAR Convention. [OSPAR](#) is the international mechanism by which 15 Governments in the region and the EU cooperate to protect the marine environment of the North-East Atlantic.

The [2014 OSPAR Regional Action Plan on Marine Litter](#) contained an action for the voluntary phase out of microbeads.

The Plan said that if a voluntary agreement proved "not to be sufficient", OSPAR would prepare a proposal to "call on the EU to introduce appropriate measures to achieve a 100% phasing out of micro-plastics in personal care and cosmetic products".

Specifically relating to micro-plastics, the Plan also contained actions to:

- Investigate and promote "sustainable and cost-effective solutions" to reduce and prevent micro-plastics from sewage and storm water entering the environment;
- Evaluate "all products and processes that include primary micro-plastics and act, if appropriate, to reduce their impact on the marine environment"; and

(d) to determine the safety and compatibility with potential recipients;

(e) to predict treatment response or reactions;

(f) to define or monitoring therapeutic measures.

Specimen receptacles shall also be deemed to be *in vitro* diagnostic medical devices;

¹⁷ Defined in [Regulation \(EC\) no. 1223 / 2009 on cosmetic products](#) as: 'Rinse-off product' means a cosmetic product which is intended to be removed after application on the skin, the hair or the mucous membranes

¹⁸ Defined in [Regulation \(EC\) No. 648/2004 on detergents](#): "Detergent" means any substance or preparation containing soaps and/or other surfactants intended for washing and cleaning processes. Detergents may be in any form (liquid, powder, paste, bar, cake, moulded piece, shape, etc.) and marketed for or used in household, or institutional or industrial purposes. Also includes fabric softener and products for cleaning and washing preparation

¹⁹ Regulation with definition not provided

²⁰ Defined in the Preamble to Annexes II to VI of [Regulation \(EC\) no. 1223 / 2009 on cosmetic products](#) as: 'Leave-on product' means a cosmetic product which is intended to stay in prolonged contact with the skin, the hair or the mucous membranes;

²¹ Personal communications with the Department of Housing, Planning and Local Government, 14 June 2019.

- Raise public awareness of the “occurrence, impact and prevention of marine litter, including micro plastics”.

Ireland’s role in the OSPAR Convention Regional Action Plan on Marine Litter

According to the Department:

“Ireland has a lead role in a number of actions under the OSPAR Convention Regional Action Plan on Marine Litter. These include developing regulatory and economic recommendations for measures to reduce the impact of single use items on the marine environment; identifying marine litter hotspots in the north-east Atlantic; examining wastewater and storm water as pathways for marine litter, including micro-litter; and developing measures to reduce the impact of expandable polystyrene in marine and coastal environments.

The Department is the lead Irish partner on the OCEANWISE INTERREG programme to reduce the impact of expandable polystyrene as marine litter. We commission, support and are involved in the oversight of an array of monitoring and research programmes related to marine litter. We are also working to develop an integrated national approach to the marine litter problem with other Departments and State agencies and are working to develop a number of measures with key stakeholders. The Department is supporting a wide range of awareness raising and citizen activation measures such as An Taisce’s world leading clean coast range of programmes and the green schools global citizenship marine environment programme and we are working to incorporate marine litter awareness into mainstream anti-litter programmes.”²²

3. Marine litter and micro-plastics

Marine litter

Marine litter is a global phenomenon affecting the world’s oceans and sea-life. Approximately 80% of this litter is derived from plastic. This plastic pollution is a major environmental threat, with millions of tonnes ending up in the marine environment where it wrecks havoc on marine organisms. Plastic pollution kills birds and sea-life and can break down into tiny particles and enter the food chain. It is estimated that globally, in 2010 between **5 and 13 million tonnes** of plastic waste ended up in the environment, in particular in the oceans which has significant negative impacts on marine-related biodiversity, human health and the economy.²³ Approximately **2-5%** of all plastics produced end up in the oceans²⁴ and without significant action, there may be more plastic than fish in the ocean, by weight, by 2050.²⁵

²² As stated by Mr. Roger Harrington of the Marine Planning and Foreshore Section in the DHPLG during [detailed scrutiny of the Prohibition of Micro-Plastics Bill \(PMB\) 2016](#) on 28 March 2018.

²³ EC, 2017a. [Roadmap on the Strategy on plastics in a circular economy](#), January.

²⁴ EC, 2017.

²⁵ Ellen MacArthur Foundation, 2017.

Micro-plastics as marine litter

A survey conducted by Cosmetics Europe which focused on the use of microbeads estimated that a total amount of 4,360 tonnes of microbeads were used in 2012 across all European Union countries plus Norway and Switzerland.²⁶

Microbeads and other micro-plastics can enter the environment when consumers rinse them down the drain along with wastewater. Wastewater treatment plants are not designed to catch micro-plastics. Most studies indicate that wastewater treatment plants have a micro-plastic retention rate of >90%. However, a 2018 Eunomica report calculated that Ireland's wastewater treatment plants have an average micro-plastic retention rates of 61%, as only 18% of them have tertiary treatment.²⁷ So, while some micro-plastics are caught in the sewage sludge in wastewater treatment plants, light particles can be released into rivers, lakes and oceans with effluent outflows. Once released, due to their low density, most of these micro-plastics float at the surface of the sea and can be ingested by fish and other marine organisms. The plastic then accumulates and can end up in humans and the food chain. While the effect on human health is as yet unknown, micro-plastics have been found in food and drinks including beer, honey and tap water.²⁸

Micro-plastics are found in growing quantities in marine ecosystems. According to the UN, there are as many as 51 trillion micro-plastic particles in the seas, 500 times more than stars in our galaxy. Of these, 69-81% of all the micro-plastics in our seas come from 'secondary sources', i.e. larger plastics which break down into smaller pieces. The main 'primary' micro-plastics found in the seas are made up of plastic pellets (0.3%), personal care products (2%), marine coating (3.7%), road making (7%), city dust (24%), tyre dust (28%) and synthetic textiles (35%).²⁹

From this it is clear that microbeads make up only a small fraction of the overall level of micro-plastics found in the oceans (approximately 3% according to some studies³⁰). However, they are an unnecessary ready-made micro-plastic and once they enter the marine environment it is virtually impossible to remove them. As such, it is prudent to try to eliminate this source of marine pollution.

UNEP studies

In 2015 the United Nations Environment Programme (UNEP) carried out a study on micro-plastics in cosmetics and their potential impact on the environment. The report noted that while the quantities of microbeads vary across different products (ranging from <1% to >90%), a typical exfoliating shower gel can contain roughly as much plastic material in the gel itself as in its packaging.

²⁶ SOFW Journal, 2015. *Use of Micro-Plastic Beads in Cosmetic Products in Europe and Their Estimated Emissions to the North Sea Environment* [online]. Available at: https://www.ikw.org/fileadmin/ikw/downloads/Schoenheitspflege/SOFW_Micro-Plastic_beads_in_Cosmetic_Products.pdf [accessed on 26.06.2018]

²⁷ Cited in DHLPG, 2018. *Draft RIA* (page 9)

²⁸ European Parliament, 2018. *Micro-plastics: sources, effects and solutions* [online]. 22 November. Available at: <http://www.europarl.europa.eu/news/en/headlines/society/20181116STO19217/microplastics-sources-effects-and-solutions> [accessed on 19.06.2019]

²⁹ European Parliament, 2018. *Ibid*

³⁰ DHLPG, 2018. *Draft RIA for the General Scheme of the Bill*

The 2015 UNEP Study identified a number of key issues, including that:

- Further research is needed to better understand the implications of nano- and micro-sized plastics in PCCPs [plastic particles in personal care and cosmetic products] on human and marine ecosystem health, especially through ingestion and chemical transfer through the food chain; and
- Given the associated potential risks of micro-plastics, a precautionary approach is recommended toward micro-plastic management, with the eventual phase-out and ban in PCCPs. Redesigning products that are more environmentally friendly, less plastic intensive and use safer chemicals can contribute towards reducing potential health threats posed by micro-plastics in PCCPs.³¹

In 2016 UNEP produced a further study on micro-plastics entitled *Marine plastic debris and micro-plastics – Global lessons and research to inspire action and guide policy change*.³² The paper included a number of policy recommendations including to:

- Increase education and awareness;
- Use the precautionary principle;
- Assess the socioeconomic and environmental costs;
- Strengthen and enforce the implementation of existing international and regional frameworks; and
- Prioritise actions for marine litter mitigation.

Irish research

While there has been a lot of research carried out in this area over recent years, there remains many gaps in the data including trying to understand the fate and toxicity of micro-plastics. Studies so far have indicated that there is not a risk to humans from eating sea-food containing micro-plastics but uncertainties remain. It was not possible to review all of the relevant studies in detail and as such, here we focus on one recent Irish study on the levels of micro-plastics found in deep water fish in the Northwest Atlantic.

NUI Galway study

In February 2018, scientists from NUI Galway published a study entitled, *Frequency of Micro-plastics in Mesopelagic Fishes from the Northwest Atlantic*³³. The report found that 73% of a sample of 233 deep water fish surveyed from the North-West Atlantic had ingested micro-plastics. This is one of the highest rates of micro-plastics found in fish in the world to date. According to the study, deep water fish migrate to the surface to feed and this is where they are exposed to micro-plastics. This highlights the fact that fish living thousands of miles from human habitation are still exposed to micro-plastics. The NUI Galway press release on the study stated that:

³¹ UNEP, 2015. *Are we polluting the environment through our personal care? Plastic ingredients that contribute to marine micro-plastic litter* [online]. Available at: [https://wedocs.unep.org/bitstream/handle/20.500.11822/9664/-Plastic in cosmetics Are we polluting the environment through our personal care - 2015Plas.pdf?sequence=3&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/9664/-Plastic%20in%20cosmetics%20Are%20we%20polluting%20the%20environment%20through%20our%20personal%20care%20-%202015Plas.pdf?sequence=3&isAllowed=y) [accessed on 26.06.2018]

³² UNEP, 2016. *Marine plastic debris and micro-plastics – Global lessons and research to inspire action and guide policy change*. United Nations Environment Programme, Nairobi.

³³ Wieczorek, A., Morrison, L., Croot, P.L., Allcock, L., MacLoughlin, E., Savard, O., Brownlow, H. and Doyle, T.K., 2018. Frequency of Micro-plastics in Mesopelagic Fishes from the Northwest Atlantic. *Frontiers in Marine Science* 19 February [online]. Available at: <https://www.frontiersin.org/articles/10.3389/fmars.2018.00039/full> [accessed on 26.06.2018]

“The fish were sampled from a warm core eddy, which is a circular current in the Northwest Atlantic Ocean. Similar to ocean gyres, these currents are now thought to accumulate micro-plastics and that the sampled fish may have originated from a particularly polluted patch of the Atlantic Ocean” and “This would explain why we recorded one of the highest abundances of micro-plastics in fishes so far.”³⁴

The report also noted that these high levels of micro-plastics would have impacts up the feed chain as many of the fish serve as a food source for larger predators including dolphins, seals, tuna and sea birds, and,

“More importantly, due to trophic transfer, predators of mesopelagic fish may also bio-accumulate chemical pollutants absorbed from ingested micro-plastics. As some of the species preying on mesopelagic fish are commercial exploited fish the transfer of micro-plastics and bio-accumulated toxins may also pose a threat to human health (Lusher et al., 2017).”³⁵

4. Pre Legislative Scrutiny (PLS) of the General Scheme of the Bill

Introduction

Following two rounds of public consultation – the first in 2017 which received over 3,000 responses and the second in 2018 on the draft [Regulatory Impact Assessment \(RIA\) on the Prohibition of Certain Products containing Plastic Microbeads Bill 2018](#), the Government published the [General Scheme of the Prohibition of Certain Products containing Plastic Microbeads Bill 2018](#) (the General Scheme). Minister for Housing, Planning and Local Government, Eoghan Murphy, TD, received cabinet approval to draft Government legislation in October 2018. The Department published the General Scheme on 1st November 2018 and it was referred to the Joint Committee on Housing, Planning and Local Government on 6th December 2018 for pre-legislative scrutiny (PLS).

In carrying out their PLS duties on the General Scheme, the Committee received a briefing in private session with Departmental officials on 17th January 2019. The Committee also engaged with a number of stakeholders in public session on 12th February 2019 as follows:

- Dr. Anne Marie Mahon, Galway-Mayo Institute of Technology;
- Dr. Róisín Nash, Galway-Mayo Institute of Technology;
- Dr. Kevin Lynch, National University of Ireland – Galway
- Ms. Siobhán Dean, Irish Cosmetics, Detergents and Allied Products Association; and
- Mr. John Chave, Cosmetics Europe.

³⁴ NUIG, 2018. *Study finds 73% of deep water fish ingested micro-plastics from the Northwest Atlantic Ocean* [online]. Available at: <https://www.nuigalway.ie/about-us/news-and-events/news-archive/2018/february/study-finds-73-of-deep-water-fish-ingested-micro-plastics-from-the-northwest-atlantic-ocean-.html> [accessed on 26.06.2018]

³⁵ Wieczorek et al., 2018

Following PLS, the Committee on Housing, Planning and Local Government published their findings in the [*Report of the Joint Committee on the General Scheme of the Prohibition of Certain Products containing Plastic Microbeads Bill 2018*](#) on 10 May 2019.

The main observations on the General Scheme from the Committee in their report were:

- Universal support for efforts to reduce the harmful effect of microbeads and micro-plastics on the environment;
- Acknowledgement for Senator Grace O'Sullivan and Deputy Seán Sherlock for contributing to and highlighting the debate on pollution from microbeads through the publication of their respective PMBs;
- In comparison to Deputy Seán Sherlock's PMB, the concerns regarding the definition of micro-plastic had been addressed;
- The scope of the General Scheme is too narrow;
- Government should be more ambitious and seek to target and ban secondary sources of micro-plastics also;
- It goes further than similar legislation introduced in other European countries such as Sweden, France and the UK;
- It is in line with recommendations from the European Parliaments Environment Committee for an EU-wide ban on micro-plastics which are intentionally added to certain products;
- Under EU requirements, a notification will need to be formally submitted to the Commission seeking a derogation from single market rules (likely on environmental grounds). The derogation request will most likely be forwarded once the Bill has completed second stage (prior to Committee stage).

Key issues

In its report, the Committee stated that it did not examine each part of the Bill, rather it chose to identify the most critical issues and focus on those. It identified four key issues set out hereunder:

Key issue 1: Definitions

Head 2 (Interpretation) of the General Scheme defines a "plastic microbead" as: "*any intentionally added synthetic water-insoluble polymer particle that, at the time of manufacture, at its widest dimension is greater than 0.1µm and at its widest dimension is less than or equal to 5mm in size, of any chemical composition, size, shape, density and function.*"

The Department advised the Committee that there would be a refinement of the definition of plastic microbead and also a definition of plastic in the Bill which the Committee was hoping to see at PLS stage. Nonetheless, it noted that some Committee witnesses welcomed the definition as progress, and clearly defined while commenting that microbeads are spherical whereas the definition in the General Scheme is broader encompassing any shape within the particular size range. This was welcomed by the Committee. However, industry stakeholders expressed concerns over the definition, considering it too broad and were not happy with the inclusion of the word polymer as they argued that not all polymers are plastic, some are harmless and do not need to be banned. The Committee recommended that Ireland take the lead and provide for the strongest possible

protection of the environment, communicate legislative changes to industry at the earliest possible stage and publish the refined definitions as soon as possible.

Key issue 2: Exceptions

There are a number of exceptions set out in the General Scheme. These include medical or veterinary products, sunscreen products, products for scientific research or education, products for reference material as part of the Agency's enforcement role and products in transit through the State (depending on where the product is coming from and where it is going and whether there are prohibitions in either/or).

The Committee sought clarification on whether the exemptions were too broad and if there were similar type exemptions in other jurisdictions. In particular, the members questioned the need to exempt sunscreen products, especially as they understood that there are no sunscreen products on the Irish market with microbeads and also that there are natural alternatives readily available.

Key issue 3: Fixed charge notice in lieu of summary offences

The Committee noted that the General Scheme provided for fixed penalty notices. During examinations, the Committee questioned whether the summary penalty was too low, but did support the need to hold individual members of a board of directors accountable for offences.









Key issue 4: Penalties





The Committee supported the provisions in the General Scheme for penalties on the prosecution of offences and considered the penalties set out to be sufficient.


Recommendations

Stemming from the three key issues above, the Committee made a number of recommendations. Table 2 overleaf summarises the Committee's recommendations and provides the Department of Housing, Planning and Local Government analysis of whether the recommendations are addressed (either in whole or in part) in the Bill or elsewhere.

Table 2: Overview of the impact of the Joint Committee PLS recommendations and response provided by the Department of Housing, Planning and Local Government (18 June 2019). The traffic light assessment represents the analysis of the L&RS.

No.	Recommendation as per Joint Committee on Housing, Planning and Local Government Report (May 2019)	L&RS 'traffic light'	Response from Department of Housing, Planning and Local Government on whether addressed (either in whole or in part) in the Bill or elsewhere
<p> Key issue has had an impact on the drafting of the Bill.</p> <p> The Bill may be described as adopting an approach consistent with the key issue <u>or</u> the impact of the key issue on the drafting of the Bill is unclear.</p> <p> Key issue has not had an impact on the drafting of the Bill.</p>			
1	Definitions		Although, the refined definition of "plastic microbeads" and the definition of "plastic" to be added to the Bill were not published, the Department updated Senator Grace O'Sullivan, Deputy Seán Sherlock and industry of the changes being made to the definitions in the Bill.
	(1) Publish the refined definition of "plastic microbeads" and the definition of "plastic" as a matter of priority		
	(2) Provide that any new definition will continue to incorporate both spherical and other shaped microbeads within the particular size range		The revised definition of microbead in the Bill caters for various microbead shapes.
	(3) Notify industry of any legislative changes in good time to facilitate transition to any new requirements relating to products containing microbeads and microplastics.		Industry was consulted and updated on an ongoing basis during the drafting of this legislation.
2	Exceptions Review the decision to exempt suntan lotions as no such products containing microbeads have been identified in Ireland and there are natural alternatives available		The Department wrote to the Health Products Regulatory Authority (HPRA) to check if there are any sun-screening lotions than contain plastic microbeads. However, the HPRA was unable to give a guarantee that no such products containing plastic microbeads are on the market. The Department decided it would be expedient to retain this exemption for the time being.
3	Fixed charge notice in lieu of summary offences (1) Review the summary penalties provided with a view towards		The fixed charge notice in lieu of summary offences has been removed from the Bill, on advice on constitutional grounds. Benchmarking to similar penalties is no longer applicable.

	benchmarking against similar penalties applied in other jurisdictions for comparative breaches		
	(2) Retain the penalty and sanction provision holding individual members of a board of directors accountable.		Retained
4	Penalties Retain the provision for penalties on the prosecution of offences in the Bill		Penalties on the prosecution of offences under the Bill have been retained. However, the prison term for conviction on indictment has been increased from up to 2 years in the General Scheme, to up to 5 years in the Bill, on the recommendation of the drafter.
5	Sampling and monitoring levels of micro-plastics Provide a mechanism to enable sampling and monitoring of treatment plants representing industrial output		Standardised sampling methodologies are currently being developed. The DHPLG and other Irish experts in this area are active in this process
6	Expand the scope of the Bill Consider expanding the scope of the Bill or publishing related legislation which seeks to prohibit the impact of secondary micro-plastics on the environment		<p>Given that secondary micro-plastics are created by the breakdown of larger pieces of plastic, this would be an extremely complex and difficult task. Much of the micro-plastic in the seas comes from fragmented larger items. Landward secondary micro-plastics come from things like micro-fibres from artificial fabrics, paints, tyre-wear and so on. The Minister cannot simply introduce legislation "prohibiting" the use of tyres, paints or artificial fabrics without massive societal, economic and market impacts. However, along with our colleagues in the EU and under the OSPAR Convention, the Department is researching and developing measures that will reduce the amount of secondary micro-plastics entering the environment. The best way of reducing the generation of secondary micro-plastics in the marine environment is to prevent plastic generally from entering our seas.</p> <p>The European Chemicals Agency have recommend a 6-year lead-in time before restricting leave-on cosmetic products, to allow time for product reformulation after the passing of such regulations. The Department would recommend that the legislation to tackle this and other forms of micro-plastic pollution resulting from secondary micro-plastics would be better</p>

			tackled by proposed REACH Regulations due to the complexities of restricting these products.
7	Priority legislation Publish the Bill as a matter of urgency to facilitate its legislative passage through the Houses of the Oireachtas.		The Bill was published on 18th June 2019 and will be debated in Dáil Éireann on Thursday 20 th June 2019.

Source: L&RS is grateful to the Department of Housing, Planning and Local Government for providing an analysis of how the Committees recommendations impact on the Bill. The traffic light assessment represents the analysis of the L&RS.

5. Principal provisions of the *Microbeads (Prohibition) Bill 2019*

This section of the Digest looks at the principal provisions of the [Microbeads \(Prohibition\) Bill 2019](#)

Definitions

Definitions of microbeads and micro-plastics vary and this was one of the key issues identified during the PLS of the General Scheme by the Committee. While a new definition of microbead and plastic has been provided for in the Bill, differences in definitions remain across various jurisdictions. One of the key issues on definitions is to ensure that they are robust and future-proofed so that any new formulations of microbeads developed will also be caught by the definitions.

This section outlines the definitions set out in the Bill, but also those proposed by Europe (which Ireland will have to comply with in the future under the REACH Regulations) and those set out in the UK and the United States of America.

Definitions in the Bill

Section 1 of the Bill provides for the definition of terms used within the Bill. A particularly important definition is that of a “microbead”, which is defined as follows:

“microbead” means a solid plastic particle that –

(a) is not water soluble, and

(b) at its widest dimension is not more than 5 millimetres in extent.

The section also provides for a definition of “plastic”. The Joint Committee on Housing, Planning and Local Government was critical of the absence of such a definition from the General Scheme in

its pre-legislative scrutiny of the legislation.³⁶ The Bill now provides for a definition of plastic as follows:

“plastic” means a synthetic polymer that –

(a) can be moulded, extruded or physically manipulated into different shapes, and

(b) that retains its final manufactured shape when used for the purpose for which it was manufactured.

The draft Regulatory Impact Assessment conducted on the General Scheme of the Bill defined microbeads in the following terms:³⁷

“Micro-plastics are small non-biodegradable solid plastic particles ($1\mu\text{m} >$ and $<5\text{mm}$) or fibres ($1\mu\text{m} >$ and $<20\text{mm}$ long)”³⁸

Europe

ECHA proposed restriction definitions

Most recently, in the ECHA Report on a proposed EU-wide restriction of intentionally added micro-plastics under the REACH Regulations, the following definitions were set out:³⁹

‘micro-plastic’ means a material consisting of solid polymer-containing particles, to which additives or other substances may have been added, and where $\geq 1\%$ w/w of particles have (i) all dimensions $1\text{nm} \leq x \leq 5\text{mm}$, or (ii), for fibres, a length of $3\text{nm} \leq x \leq 15\text{mm}$ and length to diameter ratio of >3 .

‘microbead’ means a micro-plastic used in a mixture as an abrasive i.e. to exfoliate, polish or clean.

‘polymer-containing particle’ means either (i) a particle of any composition with a continuous polymer surface coating of any thickness or (ii) a particle of any composition with a polymer content of $\geq 1\%$ w/w.

UK definitions

Microbeads are defined in English law in the following terms:⁴⁰

“microbead” means any water-insoluble solid plastic particle of less than or equal to 5mm in any dimension;

“plastic” means a synthetic polymeric substance that can be moulded, extruded or physically manipulated into various solid forms and that retains its final manufactured shape during use in its intended applications;

³⁶ [Report of the Joint Committee on the General Scheme of the Prohibition of Certain Products containing Plastic Microbeads Bill 2018](#) (May 2019) p. 19.

³⁷ [Regulatory Impact Assessment](#) of the Prohibition of Certain Products Containing Plastic Microbeads Bill 2018

³⁸ The RIA further stated, following its definition of micro-plastics that:

“Plastic microbeads in cosmetic products are mostly made of polyethylene (PE)¹⁵ but can be made of other petrochemical plastics including polypropylene (PP), polyamide (PA), polymethyl methacrylate (PMMA), polystyrene (PS), polyurethane (PUR), polytetrafluoroethylene (Teflon) and polyethylene terephthalate (PET)¹⁶ although other polymers may be used.”

³⁹ ECHA, *Annex XV Restriction Report: Proposal for a Restriction* (20 March 2019) p. 16.

⁴⁰ [The Environmental Protection \(Microbeads\) \(England\) Regulations 2017](#), Reg. 2.

Definitions in the United States of America

A number of different legal definitions of microbeads have been used in legislation in the United States, where different States have introduced their own legislation. For example, the *Microbead Free Waters Act 2015*, a federal US statute, defines the term 'plastic microbead' as "any solid plastic particle that is less than five millimetres in size and is intended to be used to exfoliate or cleanse the human body or any part thereof".

While some States have banned all 'solid' plastic particles in personal care products, other bans make exception for bio-degradable plastics that meet "relevant international standards".⁴¹ This poses a difficulty as no international standards exist in relation to bio-degradable plastics. Other State Bills provide their own definition of "bio-degradable".⁴²

Rinse-off products

While the definition in this Bill does not explicitly refer to "rinse-off" products, the explanatory memorandum to the Bill states that the ban is intended to cover products containing microbeads where there is "a clear pathway to watercourses and wastewater systems, such as water-soluble products that are designed to be rinsed or washed off down the drain."⁴³

Prohibition

Section 2 of the Bill provides for the general prohibition on the manufacture or sale of a cosmetic or cleaning product that contains microbeads. The Bill sets these out as two separate offences:

- "2.** (1) A person shall not manufacture or place on the market a cosmetic product that –
- (a) is water soluble, and
 - (b) contains microbeads.
- (2) A person shall not manufacture or place on the market a cleaning product that –
- (a) is water soluble, and
 - (b) contains microbeads."

These offences are expressly subject, in subsection (4) to a "due diligence" style defence. The subsection states that it is a defence to either of the above offences for the defendant to "show that he or she took all measures reasonably necessary to prevent such contravention."

Due diligence defence is a common feature of corporate offences and are generally provided in respect of strict liability offences.⁴⁴ They allow a defendant to avoid conviction where he or she can

⁴¹ Michelle Schimel (2015) New York State Bill A5896: An act to amend the environmental conservation law, in relation to prohibiting the distribution and sale of personal cosmetic products containing microbeads, April 2015, http://assembly.state.ny.us/leg/?default_fld=%0D%0A&bn=A05896&term=2015&Summary=Y&Actions=Y&Votes=Y&Text=Y

⁴² See Vermont (<http://legislature.vermont.gov/bill/status/2016/S.47#detailed-status>) and Maryland (<https://legiscan.com/MD/text/HB216/id/1248633/Maryland-2015-HB216-Chaptered.pdf>)

⁴³ *Microbeads (Prohibition) Bill 2019*, [Explanatory Memorandum](#).

⁴⁴ Strict liability offences differ from traditional "fault-based" offences in that they do not explicitly require that the perpetrator have a guilty mind in respect of the offence i.e. that they intended it or were reckless as to whether it was occasioned. They usually, however, provide for a "due diligence" defence of the kind provided for in this Bill, which provides some scope for an accused to avoid a conviction on the basis that they are not morally culpable. Offences that have neither a "fault" element nor a due diligence defence are known as "absolute liability" offences. These are rare.

show that he or she took “all reasonable precautions” or followed a generally safe and robust system.

The offence as stated in section 2(1) and section 2(2) does not provide for any explicit fault element i.e. it is not concerned with whether the offender acted intentionally or recklessly, and the offence is complete on establishing the fact of the offence. The provision of a due diligence defence mitigates the apparent harshness of this position. That is, where the fact of the offence is made out, the perpetrator will be found guilty unless he or she can demonstrate that he or she exercised due diligence and took all reasonable precautions to prevent the offence.

The [RIA for the General Scheme of the Bill](#) made reference to a “sell through” period to allow for the sale of residual products in stock when the Bill enters into force. However, this is not provided for in the Bill.

Exemptions

Section 3 provides for certain exemptions from the scope of the prohibition contained in section 2. It excludes medicinal products, sunscreen products, products in transit through the State, materials used for education or for scientific research by an approved body, and certain products as may be specified by regulations by the Minister.

Particularly notable among these exemptions is that for sunscreen products, or as the Bill describes them “any product the purpose of which is to protect the skin from the effects of ultra-violet radiation.” The inclusion of this exemption was criticised in strong terms by the Joint Committee on Housing, Planning and Local Government in its report following pre-legislative scrutiny.⁴⁵

“The exemption referring to suntan lotions attracted significant attention. Members felt it strange that despite the fact that there are no products on the Irish market that fulfil that function and which contain micro-plastics or microbeads, an exemption was still provided for in the General Scheme. As microbeads do not add anything to the medical value of suntan lotions and are purely cosmetic, it was felt that the inclusion of an exemption might act as a perverse incentive to companies to add such agents to suntan products.”

The Committee recommended that the Department review the specific exemption for sunscreen products provided for in the General Scheme.⁴⁶ However, the provision remains unchanged in the Bill.

The section provides for an exception for medicinal products. In the General Scheme, the exemption extended to medicinal products and to veterinary medicinal products.⁴⁷ However, the Bill provides for an exemption only in respect of medicinal products for use in humans. Note that veterinary products are included in the ECHA restriction proposal under the REACH Regulations.

For a fuller discussion of the defence of due diligence, and of the division of criminal offences into fault based, strict liability, and absolute liability, see the Law Reform Commission’s [Report on Regulatory Powers and Corporate Offences](#) (LRC 119 – 2018) Chapter 11.

⁴⁵ [Report of the Joint Committee on the General Scheme of the Prohibition of Certain Products containing Plastic Microbeads Bill 2018](#) (May 2019) p. 21.

⁴⁶ Ibid.

⁴⁷ Head 4 of the General Scheme of the Prohibition of Certain Products Containing Plastic Microbeads Bill 2018.

Section 2(c) provides for an exemption in respect of materials used in education or in scientific research. It excludes from the scope of the prohibition the supply of a product to “a relevant provider within the meaning of the *Qualifications and Quality Assurance (Education and Training) Act 2012*”. That Act defines a “relevant provider” as including an established university, a technological university, and other similar bodies.⁴⁸

It also excludes from the ban the supply of a product to “an approved body”. An approved body is defined as one so approved by the Environmental Protection Agency (the Agency) as carrying on scientific research.

The Minister is also empowered to make regulations rendering certain specific products, or certain classes of products, exempt from the ban if he or she is satisfied that it is essential to the carrying out of a “specified industrial cleaning process”. Every such regulation is required to be laid before the Houses of the Oireachtas.

The exception in respect of products in transit through the jurisdiction is provided in order to satisfy free movement of goods obligations under EU law.

Disposal of microbeads

A further offence is provided for in Section 4 of the Bill in respect of the disposal of microbeads. The offence provides that person shall not dispose of a substance containing microbeads in “the maritime area or inland waters of the State” or in any drain or water treatment plant, or on the High Seas from an Irish ship. Similar to the prohibition on manufacture and sale of products containing microbeads, a due diligence defence is provided in s.4(3).

This is an important provision having regard to the general objective of the Bill: reducing overall marine litter by preventing microbeads from entering drains and watercourses and being released into the sea. The environmental risks associated with micro-plastics pollution in our marine ecosystems are discussed in detail in Section 3 of this Bill Digest.

Powers of authorised persons

Section 5 of the Bill provides for the powers of authorised persons to investigate and to enforce the provisions of this Bill. Authorised person is defined in section 1 of the Bill as being either a customs officer or an authorised person appointed under the [Environmental Protection Agency Act 1992](#).

The section empowers authorised persons to inspect premises that he or she has reasonable grounds for believing that a business or trade associated with microbeads is being carried on, or where documents relating to such trade are being kept. An authorised person is also empowered to inspect, take copies of, and/or remove documents or records found at such premises. The authorised person is also empowered to require any person at such a premises to give information or assistance, and to produce documents or materials. The authorised person may also inspect, or remove for inspection, any material that he or she has reasonable grounds for believing contains microbeads.

⁴⁸ [Section 2](#) of the 2012 Act.

The power of an authorised person to search a premises under this section does not extend to dwellings, having regard to the constitutional guarantee of the inviolability of the dwelling under Article 40.5. Section 5(2) directs that an authorised person must apply to a judge of the District Court for a search warrant authorising the search of a premises.

Section 5(5) provides that obstructing an authorised officer, or failing to comply with a direction of an authorised officer, constitutes an offence.

The provisions of this section are very similar to a number of other pieces of legislation that similarly provide for powers on the part of authorised officers to inspect premises, seize property and require information where necessary to the enforcement of their duties under legislation.⁴⁹

Offences by bodies corporate

Section 6 provides a means by which an officer of a corporation that has committed an offence under the Act can themselves be held liable for the same offence, arising out of the same conduct. This is sometimes known as “derivative liability” or “secondary liability”. Provisions of this nature are common in legislation dealing with corporate crime and are sometimes referred to as “consent, connivance and neglect” provisions, reflecting the common language used throughout. The purpose and effect of these kinds of provisions have been described as follows:⁵⁰

“Statutes creating offences commonly provide for a slightly wider basis on which directors can be found individually liable for offences committed by their company. Such statutes provide that directors can be individually liable if they ‘consent or connive’ at the commission of the offence by the company [...] consent and connivance provisions ensure that individual directors who are fully aware of, and approve of (or, for example, sign papers consenting to) criminal wrongdoing can themselves be convicted of the crime, even though their approval or consent does not as such encourage or assist the commission of the crime committed, assisted or instigated by other directors or equivalent persons.”

It should be noted that the Law Reform Commission (the Commission) has criticised this mode of attributing derivative liability, and has recommended reform. The Commission takes the view that this model of attributing derivative liability can impute a greater degree of culpability to the secondary offender than may actually be warranted by his or her conduct. The Commission considered the benefits and drawbacks of this model of attributing liability in the following terms:⁵¹

“The benefit of the fault requirements of the consent, connivance or neglect model of liability, is that it covers a far greater scope of culpability than, for example, the aids, abets, counsels or procures model... Despite this benefit, examples of the consent, connivance and neglect model demonstrate that this model fails to ensure that the fault required of the secondary participant tracks that required of the principal offender. This has resulted in it attracting disparity of culpability and unfair labelling criticisms.”

⁴⁹ Such examples include the powers of authorised persons under the *Environmental Protection Agency Act 1992* itself. More recent examples include the *Taxi Regulation Act 2013* and the *Children First Act 2015*.

⁵⁰ Law Commission of England and Wales, *Consultation Paper on Criminal Liability in Regulatory Contexts* (CP No 195 2010) at p. 140.

⁵¹ Law Reform Commission, [Report on Regulatory Powers and Corporate Offences](#) (LRC 119 – 2018) p. 472.

The Commission recommended that an alternative scheme be enacted under which the level of fault of the managerial agent must track that of the primary offender i.e. the body corporate.⁵²

Penalties

Section 7 provides for the maximum penalties available in respect of offences under this Bill. The section provides that:

7. A person guilty of an offence under this Act shall be liable -

- (a) on summary conviction, to a class A fine⁵³ or imprisonment for a term not exceeding 12 months or both, or
- (b) on conviction on indictment, to a fine not exceeding €3,000,000 or imprisonment for a term not exceeding 5 years or both.

The most notable aspect of the Bill's provision for penalties is the absence of a fixed-charge notice, which was contained in the General Scheme. Fixed-charge notices effectively allow a person to pay a prescribed sum in lieu of prosecution. They are most common in road-traffic offences and in minor public order offences. When issued with a fixed-charge notice, a person has a specified period of time in which to pay the charge. If a person fails to pay the charge, a prosecution is brought against them. Fixed-charge notices are often considered an efficient means of dealing with minor offending, allowing offenders to acknowledge wrongdoing and to consequently avoid prosecution.⁵⁴

The General Scheme provided for a power on the part of an "authorised person", as defined in Section 1 of the Bill, to issue a fixed-charge notice of €500, to be paid within 21 days. The Joint Committee on Housing, Planning and Local Government, in its report on pre-legislative scrutiny of the General Scheme, suggested that fixed charge might be considered too low.⁵⁵ The Committee recommended that the Minister review the charge with a view to benchmarking it against similar penalties in other jurisdictions.⁵⁶

Prosecution of offences

Section 8 of the Bill allows for summary proceedings for an offence under the Bill to be brought and prosecuted by the Agency (EPA). It is reasonably common for various statutory bodies to be

⁵² In respect of strict liability offences (such as that proposed in this legislation), the Commission recommended (at p. 514 of the Report) that managerial agents that are prosecuted under a scheme of derivative liability should have the benefit of the following defence:

- (1) he or she was not operating with authority or control in relation to the conduct of the corporate body, or its agents, which forms the basis of the conduct element of the substantive offence; or
- (2) he or she acted reasonably in relation to the operation of his or her authority or control over the conduct of the corporate body, or its agents, as a managerial agent:
 - a. in relation to the corporate body's commission of the conduct element of the substantive offence; or
 - b. in relation to the corporate body's failure to satisfy any defence provided for in relation to substantive offence.

⁵³ A maximum of €5,000

⁵⁴ See discussion in Law Reform Commission, [Report on Regulatory Powers and Corporate Offences](#) (LRC 119 – 2018) at p. 223.

⁵⁵ [Report of the Joint Committee on the General Scheme of the Prohibition of Certain Products containing Plastic Microbeads Bill 2018](#) (May 2019) p. 23.

⁵⁶ Ibid.

empowered to prosecute offences relevant to their remit.⁵⁷ Other examples include Competition and Consumer Protection Commission,⁵⁸ the National Transport Authority⁵⁹ and the Office of Tobacco Control.⁶⁰ The power of the Agency to prosecute only extends to summary proceedings. Where the offence is to be charged on indictment, it is the Director of Public Prosecutions who must bring proceedings.

Section 8 also makes provision for the award of costs following proceedings under this Bill. The section provides that:

“Where a person is convicted of an offence under this Act, the court shall order the person to pay to the Agency the costs and expenses, measured by the court, incurred by the Agency in relation to the investigation, detection and prosecution of the offence unless the court is satisfied that there are special and substantial reasons for not so doing.”

This section is somewhat unusual in its mandatory direction to the court as to the award of costs. The award of costs is ordinarily a highly discretionary judicial function in which the merits of the award are considered with respect to the facts of the individual case. The Oireachtas often adopts a somewhat deferential approach in suggesting the award of costs to the courts, often directing that a court “may” award costs against an unsuccessful litigant/convicted person.⁶¹ However, the provision is by no means unique, with the *Public Health (Alcohol) Act 2018* and the *Workplace Relations Act 2015* both recent examples of mandatory direction to the courts as to the award of costs against a convicted person.⁶²

6. Regulatory Impact Assessment of the Bill

The Department of Housing, Planning and Local Government published a draft [Regulatory Impact Assessment](#) on the General Scheme of the *Prohibition of Certain Products containing Plastic Microbeads Bill 2018* (the RIA) which identified and analysed a number of options on how to deal with the issue of plastic microbeads which are deliberately added to certain products. The RIA identified and considered six options:

1. Do nothing;
2. Support an EU wide prohibition on certain products containing plastic microbeads;
3. A national voluntary ban on certain products containing plastic microbeads in cooperation with industry;
4. Levy certain products containing plastic microbeads;
5. Introduce legislation to label certain products containing plastic microbeads; or
6. Introduce legislation to prohibit the manufacture, import, export, supply, sale or exposure for sale of certain products containing plastic microbeads

⁵⁷ Dermot Walsh, *Walsh on Criminal Procedure* (2nd ed. Round Hall, 2016) para 13-86.

⁵⁸ Sections 8 and 26 of the *Competition Act 2002*.

⁵⁹ Section 28 of the *Vehicle Clamping Act 2015*.

⁶⁰ Section 6 of the *Public Health (Tobacco) Act 2002*.

⁶¹ See for example section 147 of the *Data Protection Act 2018*.

⁶² See sections 8 and 7, respectively.

Costs, benefits and impacts of each option were considered and Option 6 was chosen as the preferred option.

Option 6: Preferred Option

Choosing Option 6 as the preferred option has culminated in the publication of this Bill. The RIA identified costs, benefits and impacts from Option 6 as follows:

Costs – estimated €250,000 per year for five years on enforcement (€1.25 million) with a further €250,000 for first year on a public awareness campaign.

Benefits – help protect the marine environment and seafood supply by reducing the quantities of plastic microbeads entering watercourses, provide certainty for consumers, businesses and regulators, level playing field for all manufacturers and vendors of the banned products, align Ireland with the growing international demand for environmentally friendly products and make Ireland a leader, encouraging other countries to do the same.

Impacts - the elimination of plastic microbeads from products targeted by the Bill means that manufacturers would need to look for alternatives to plastic microbeads and create new product labelling. However, many companies have already voluntarily begun phasing out plastic microbeads from their products so this ban would only place an onus on those who have not yet done so. Further information on the implications of the Bill are set out in the following Section of this Digest.

Free movement of goods

According to the European Commission Guide to the free movement of goods:

A ban on the marketing of a specific product or substance is the most restrictive measure a Member State can adopt from a free movement of goods perspective. The Member State imposing a national ban on a product/substance has to show that the measure is necessary and, where appropriate, that the marketing of the products in question poses a serious risk to public health and that those rules are in conformity with the principle of proportionality. This includes providing the relevant evidence, such as technical, scientific, statistical and nutritional data, and all other relevant information.⁶³

The RIA has acknowledged that the ban would have implications for the principle of free movement of goods within the EU. Ireland would need to seek a derogation from the European Commission in accordance with single market requirements (most likely on environmental grounds). Ireland would also need to notify the World Trade Organisation (WTO) of any proposed legislation that intends to restrict the free movement of goods. Some other European countries have already imposed bans and therefore it is expected that Ireland will receive a derogation. However, the Irish legislation is broader in scope than that of other countries which have already received a derogation as it includes certain cleaning products. The process for applying for a

⁶³ European Commission, 2010. **Free movement of goods** *Guide to the application of Treaty provisions governing the free movement of goods* [online]. Available at: <https://publications.europa.eu/en/publication-detail/-/publication/a5396a42-cbc8-4cd9-8b12-b769140091cd> [accessed on 18.06.2019]

derogation takes approximately three months⁶⁴ and the derogation request is expected to be forwarded once the Bill has completed second stage (prior to Committee stage).

7. Implications of the Bill

The overall aim of this Bill is to protect the environment by helping to reduce the levels of micro-plastics entering our marine ecosystems. As such, the key impacts are benefits to the environment. However, as identified during the development of microbeads legislation, there are also economic, social and legal impacts as well as impacts on food and tourism.

The implications set out below were identified through an analysis of:

- Detailed scrutiny of Deputy Seán Sherlock's PMB on microbeads;
- PLS of the General Scheme of the Bill;
- The RIA for the General Scheme of the Bill; and
- The Bill.

However, it is important to note that this list is not intended to be exhaustive.

Environmental

Costs:

- There are gaps in the research so that implementation of this Bill may not achieve as much environmental benefits as if we waited and legislated for more micro-plastics rather than just microbeads; and
- An EU-wide ban would have more power and the restrictions proposed by ECHA and under REACH Regulations are broader than those proposed for in the Bill.

Benefits:

- Reduces the levels of micro-plastics entering and polluting freshwater and marine environments;
- Reduces the levels of microbeads in sewage sludge;
- Reduces the levels of microbeads spread on agricultural land (through sewage sludge) and associated risks of leaching of microbeads into the soil and groundwater;
- Reduces the risk to sea-life from ingesting micro-plastics;
- Reduces the risk of microbeads entering human drinking water and food chains;
- In line with Ireland's European and International environmental commitments including the EU Plastic Strategy, the Marine Strategy Framework Directive and the OSPAR Convention;
- In line with the recommendations of the European Parliament Environment Committee;
- Enhances Ireland's environmental reputation internationally as a leader in the protection of our marine environment;
- Reduces greenhouse gases emitted during the production of plastics by eliminating a source of plastic which leads to protection of the environment and the climate;
- Incentivises the use of natural alternatives to micro-plastics such as walnut shells and silica;
- May incentivise greater research into the area of marine litter and plastics pollution;

⁶⁴ Although The EU can extend the derogation standstill period (from original three months), by an additional three months (total six months) if the Commission or other Member State makes a detailed opinion/ have an issue with the Bill. Sometimes the EU or other Member States will respond with a comment such as "support for the proposed measure etc", These type of comments do not extend the standstill period.

- Sets an example to and may incentivise other countries to develop bans. As marine litter is a transboundary problem, the more countries with bans in place the better;
- Starts the process of banning certain products containing plastic microbeads now, rather than waiting for the proposed restriction on microbeads under REACH which are not yet ready for transposition and implementation;
- Complements the proposed restriction on microbeads coming from Europe under the REACH regulations.

Health benefits

- Humans will be at a lower risk of exposure to microbeads in their drinking water and food if the ban was in place;
- Possible health benefits from using more natural cosmetics;
- Positive behavioural change; and
- Intrinsic benefits from promoting a sustainable environment.

Social

Costs

- May be a reduced choice of products available for consumers

Benefits

- Stimulates environmental awareness and encourages the use of natural skincare products;
- Stimulates awareness over the problem of marine litter and our role to play in helping to minimise the quantities of plastic entering the environment;
- Promotes higher standards among the public for pollution standards; and
- Potentially increases the choice of *natural* skin care available

Economic

Costs to the Government

- Enforcement activities by the Agency (EPA) and the Revenue Commissioners are estimated to cost approximately €0.25 million per year for the first five years after the introduction of the ban. These costs relate to monitoring compliance with the legislation. An additional €0.25 million would be spent on promotion of the ban in the first year, associated with posting information on the EPA/Departments website. This is a total estimated cost of €1.5 million over the first five years. Section 10 of the Bill provides that the administrative costs for the proposals set out in the Bill will be paid for out of voted expenditure.

Costs to businesses and consumers

- Cost of researching and sourcing alternatives to micro-plastics;
- Using more expensive non-plastic alternatives may lead to increase in production costs and any increase in price may be passed on to the consumer;
- Sales may decrease if price of product increases;
- Loss of sales of residual products still in stock when the Bill enters into force (the RIA refers to a “sell through” period to allow for this stock to be sold but it is not provided for in the Bill).

Benefits to businesses and consumers

- Most Irish cosmetic manufacturers are small companies and already focus on natural ingredients and so do not add microbeads to their products;
- The trend has already started with many of the larger companies phasing out microbeads voluntarily;
- Enhances the company's environmental reputation;
- Positions Ireland to take advantage of consumers keen to use environmentally-friendly cosmetics which may lead to increases in sales;
- Stimulates business for natural cosmetics companies;
- May place Irish companies at an advantage internationally as the EU-wide ban will enter into force in the coming years and Irish companies will be able to compete immediately; and
- Stimulates desire to develop new natural cosmetic products.

Benefits to tourism

- Enhances attractiveness / desirability of Ireland as an environmentally-friendly destination;
- Improves the perception of the quality of Irish beaches and waters; and
- Enhances environmental reputation of Ireland as a 'leader' in tackling marine litter and microbeads.

Seafood industry and food security

Costs

- Reputational damage to the seafood industry as there may be a perception that Irish seafood is of poorer quality and safety if Ireland does not demonstrate a willingness to lead on the fight against marine pollution;
- Could potentially reduce revenues from the aquaculture although the relationship between animal ingestions of micro-plastics in commercially significant species and effects to their health continues to be the subject of ongoing debate.⁶⁵

Benefits

- Will improve the image of Irish seafood

Other impacts include that Ireland will now be in line with Northern Ireland legislation recently introduced on the prohibition of certain cosmetic products containing plastic microbeads (although the Irish legislation will go further).

⁶⁵ As set out on page 28 of the draft RIA for the General Scheme (DHPLG, 2018).

8. International comparisons of similar legislation

Many countries are currently considering legal bans on certain products containing plastic microbeads. A number of countries have already imposed bans on rinse-off cosmetics containing microbeads. New Zealand has gone further and included abrasive/cleaning products in its ban. These countries include:

United States of America

In June 2014, Illinois became the first US state to [ban the manufacture of products with microbeads](#) (by the end of 2018) and the sale of them (by the end of 2019).

In December 2015, [President Obama today signed into law H.R. 1321](#), the Microbead-Free Waters Act of 2015. The bipartisan legislation will begin the phase out of plastic microbeads from personal care products on July 1, 2017.

This [bill](#) amends the Federal Food, Drug, and Cosmetic Act to ban rinse-off cosmetics that contain intentionally-added plastic microbeads beginning on January 1, 2018, and to ban manufacturing of these cosmetics beginning on July 1, 2017. These bans were delayed by one year for cosmetics that are over-the-counter drugs.

A December 2015 *New York Times* article '[Ban on Microbeads Proves Easy to Pass through Pipeline](#)' suggested that the passage of the legislation was unusually fast. According to the article, all of the major companies had already announced initiatives to phase them out, partially in response to the fact the several states had recently passed bead bans, and more than half of the states were considering them. According to a spokesperson for one of the Bills' sponsors, the growing number of state and local laws, with conflicting restrictions and timelines, motivated industry to support the law, and avoid a patchwork of state regulations.

Canada

On 24th March 2015, the Canadian House of Commons unanimously voted for the government to take immediate measures to add microbeads to the List of Toxic Substances under the Canadian Environmental Protection Act 1999 (CEPA). This vote was based on the potential threat microbeads in personal care products used to cleanse and exfoliate posed to the environment. As a result, a scientific assessment of the potential environmental impacts of microbeads was conducted. Results published in a [Science Summary](#) by Canada's Environment and Climate Change Department on 30th July 2015 confirmed that microbeads can have a deleterious affect on aquatic organisms. A Notice of Intent to regulate microbeads was issued on 1st August and a public consultation was initiated on 10th February 2016. On 17th June 2016, plastic microbeads of 5mm or less in size were added to the list of Toxic Substances under the CEPA.

In June 2017, the [Microbeads in Toiletries Regulations](#) which provide for the protection of the environment by reducing the quantity of plastic microbeads entering Canadian freshwater and marine ecosystems were published in the [Canada Gazette, Part II: Vol. 151, No. 12 - June 14, 2017](#). The regulations prohibit the manufacture, import, and sale of toiletries used to exfoliate or cleanse that contain plastic microbeads, including non-prescription drugs and natural health

products. Since 1st January 2018, the manufacture and import of toiletries that contain plastic microbeads has been prohibited unless the toiletries are also natural health products or non-prescription drugs, in which case the prohibition began on 1st July 2018. As of 1st July 2018, the sale of toiletries that contain plastic microbeads has been prohibited, unless the toiletries are also natural health products or non-prescription drugs, in which case the prohibition begins on 1st July 2019.⁶⁶

Government and [media articles](#) also confirm that Cosmetics companies in Canada are already phasing out the use of microbeads with many articles quoting that "of the 14 companies that make up the Canadian Cosmetic, Toiletry and Fragrance Association — the heaviest users of microbeads in Canada — five have already stopped using microbeads in their products and nine more will follow suit by 2018 or 2019."

UK

In August 2016 the House of Commons Environmental Audit Committee requested a ban on microbeads and the Government announced plans to ban microbeads by 2017. In January 2018 the prohibition of the manufacture of microbeads in cosmetics and personal care products came into effect.⁶⁷ Since July 2018, there has been a ban on the sales of cosmetics and personal care products containing microbeads in place across England, Wales and Scotland. A ban on the manufacture and sale of rinse-off personal care products containing microbeads entered into force in March 2019 in Northern Ireland.⁶⁸ This means that there is now a ban on microbeads across the whole of the UK.

France

On the 6th March 2017, a French decree was published which bans the placing on the market of rinse-off cosmetics containing microbeads from 1st January 2018.⁶⁹ There was no obligation to withdraw cosmetic products placed on the market before 1st January 2018.⁷⁰

New Zealand

Regulations were enacted in December 2017 in New Zealand to ban the manufacture and sale of wash-off products that contain microbeads for certain purposes. The New Zealand ban covers **cosmetics and abrasive/cleaning products** (for example, household, car or industrial cleaning products) making it far broader than all of the other bans on products containing plastic

⁶⁶ Government of Canada, 2018. *Microbeads* [online]. Available at: <https://www.canada.ca/en/health-canada/services/chemical-substances/other-chemical-substances-interest/microbeads.html> [accessed on 25.06.2018]

⁶⁷ Carrington, D., 2018. Plastic microbeads ban enters force in the UK. *The Guardian* 9 January [online]. Available at: <https://www.theguardian.com/environment/2018/jan/09/plastic-microbeads-ban-enters-force-in-uk> [accessed on 25.06.2018]

⁶⁸ [2019 No. 18, Environmental Protection, The Environmental Protection \(Microbeads\) Regulations \(Northern Ireland\) 2019](#)

⁶⁹ Eco Mundo, 2017. *Banning microbeads in cosmetics in France by 2018* [online]. Available at: <https://www.ecomundo.eu/en/blog/ban-microbeads-cosmetics-france-2018> [accessed on 25.06.2018]

⁷⁰ DHPLG, 2018. *Draft RIA for the General Scheme of the Bill*

microbeads implemented to date. A six month grace period was allowed and the ban came into effect on 7 June 2018.⁷¹

Sweden

Since 1st July 2018, rinse-off cosmetic products containing plastic microbeads are banned. Products purchased in stock before 1st July 2018 could continue to be sold in shops until 1st January 2019.

South Korea

Since July 2017, the import and manufacture of rinse-off cosmetics containing plastic microbeads has been banned with an added ban on sales since 1st June 2018.

9. Alternatives

Voluntary phase-outs

In **Australia**, in 2015, due to concerns over the impact of microbeads on the marine environment, the Government proposed a voluntary industry-led phase-out of microbeads from rinse-off cosmetics, personal care and cleaning products by 1 July 2018. Results from May 2018 indicate that industry is on-track to reach this goal.⁷²

In October 2015, Cosmetics Europe, the European trade association for the cosmetics and personal care industry recommended that “in view of the public concerns expressed... and given the availability of alternative materials”, its membership the discontinuation of microbeads in “wash-off cosmetic and personal care products for exfoliating and cleansing purposes” by 2020.

On 30 May 2018, Cosmetics Europe announced that a decrease of over 97% in the use of plastic microbeads for cleansing and exfoliating purposes in wash off cosmetic and personal care products had been recorded between 2012 and 2017.⁷³

Some examples of companies committed to phasing out microbeads from their cosmetic ranges and/or phasing out the sale of any cosmetics containing microbeads in their shops include Boots, Tesco, Waitrose, Superdrug, Unilever, Johnson & Johnson and the Body Shop.

Stop stocking cosmetics containing microbeads

Shops may also decide voluntarily to stop stocking brands or products which contain microbeads.

⁷¹ Ministry for the Environment, 2018. *Plastic microbeads ban* [online]. Available at: <http://www.mfe.govt.nz/waste/plastic-microbeads> [accessed on 25.06.2018]

⁷² <http://www.environment.gov.au/protection/national-waste-policy/publications/assessment-voluntary-phase-out-microbeads>

⁷³ Cosmetics Europe, 2018. *Over 97% of plastic microbeads already phased out from cosmetics –Cosmetics Europe announces* [online]. Available at: <https://www.cosmeticseurope.eu/news-events/over-97-plastic-microbeads-already-phased-out-cosmetics-cosmetics-europe-announces> [accessed on 26.06.2018]

According to their Sustainability Statement, Brown Thomas no longer stock any cosmetics which contain microbeads.⁷⁴

According to the Irish Times (28 October 2016), Arnotts also stopped selling cosmetics containing microbeads.⁷⁵ However, a search of their website came up with a Clarins Exfoliator “with microbeads”.

Broaden the scope of the Bill

Research so far has shown that microbeads from primary sources represent a small part of the overall levels of micro-plastics found in marine environments. Studies have found that micro-fibres and secondary micro-plastics are more prevalent. With this in mind, it could be possible to carry out further research and consider expanding the scope of the Bill to include for example, cotton buds, household cleaning products containing micro-plastics and plastic straws. In France for example, the same decree which introduced the ban on microbeads will also require a ban on plastic cotton buds from 2020.

Improved education and awareness

Increasing awareness of the damage which microbeads can do in the environment may help to change people’s attitudes to their use.

An example of this is the Campaign Group Beat the MicroBead which set up a website and App that helps consumers check if the product they are buying contains microbeads and also lists the companies which do not use microbeads.

⁷⁴ <https://www.brownthomas.com/about-brown-thomas/brown-thomas-sustainability.html>

⁷⁵ 2016. Sargent, N. Micro-plastics: from must-have to hated cosmetic ingredient. *The Irish Times* 28 October [online]. Available at: <https://www.irishtimes.com/news/environment/micro-plastics-from-must-have-to-hated-cosmetics-ingredient-1.2846858> [accessed on 25.06.2018]



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