

# SINGLE-USE MENSTRUAL PRODUCTS, NAPPIES & WET WIPES

Assessing existing measures and providing policy recommendations to minimise the impact of these single-use items across Europe







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The production, consumption and disposal of single-use menstrual products, nappies and wet wipes has serious environmental, economic and social impacts. A 2019 study by Rezero, Break Free From Plastic (BFFP) and Zero Waste Europe (ZWE) had several key findings:

# Overall consumption rates and waste generation

Statistics show that by 2017 (reference year) in the 28 EU Member States:

- More than 49 billion units of menstrual products were consumed, generating some 590,000 tonnes of waste.
- Around 33 billion single-use baby nappies were consumed, resulting in 6,731,000 tonnes of waste per year.
- Around 68 billion individual **wet wipes** were consumed, which equates to **511,000 tonnes of waste per year**.

# **Environmental and economic impacts**

**Waste generation:** Single-use menstrual products, baby nappies and wet wipes account for approximately **7,832,000 tonnes** of waste within the EU-28 (equivalent to 15.3kg per inhabitant per year). **This accounts for 3% of total municipal solid waste and 4% of the total residual municipal waste stream.** 

**CO2 emissions:** Single-use nappies and menstrual products contribute significantly to global warming. Throughout their lifecycle, these items emit an estimated **3,300,000 tonnes and 245,000 tonnes of CO2 equivalents per year**, respectively.

**Marine litter and costs for public administration:** Single-use menstrual products and wet wipes are often flushed down the toilet after use and thus may enter the marine environment through the wastewater release system. This has substantial environmental and economic impacts.

Significant **costs are associated with waste management** (collection and final treatment) of these products. It is estimated that the costs can range from €3-10 per inhabitant per year, depending on the country:

 Maintenance and unblocking of sewer facilities: waste disposal for sewage debris removed from wastewater treatment plants is an estimated €500-1,000 million per year for the EU.

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• Removing these products from beaches: coastal municipalities incur costs of about €1,100,000 million annually in the UK and approximately €50,000 for the government of the **Balearic Islands** each year.

The scale of the problem justifies the call for policy action at European, national and regional level.

This study aims to analyse the European legal framework that regulates single-use menstrual products, nappies and wet wipes. It identifies and proposes legal and technical instruments to prevent and reduce the economic and environmental impacts of these products. Finally, it aims to support the transition towards reusable and toxic-free products and systems at European, national and regional level.

# Legal framework analysis

Five European legal frameworks were identified and analysed in respect of the regulation of single-use menstrual products, nappies and wet wipes.

### Legal framework for waste management and packaging waste

These areas are primarily regulated by Directive 2008/98/EC (Waste Framework Directive)<sup>1</sup> and Directive 94/62/EC (Packaging and Packaging Waste Directive).<sup>2</sup> The analysis indicates that single-use menstrual products, nappies and wet wipes are included in the scope of municipal waste. With no specific regulation addressing their waste management, they are not collected separately and therefore end-up into the mixed municipal waste bin, contaminating that waste bin and hampering the recycling process. The waste from these products ends up in landfills and incinerators, in the environment or clogging pipes in sewage systems.

### Legal framework for medical devices

The main European regulations were analysed to identify whether menstrual products, nappies and wet wipes are considered medical devices, and concluded that they are not.

### **Legal framework on single-use plastics**

Single-use menstrual products and wet wipes are partly regulated by Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment (SUP Directive).3 The Directive addresses the impacts of single-use menstrual

products and wet wipes through marking/labelling requirements, awarenessraising measures and extended producer responsibility (EPR) obligations (for wet wipes only). In this latter, producers of wet wipes must bear the costs of awarenessraising measures, clean-up, transport and treatment of resulting litter, data gathering and reporting. However, the measures and requirements remain insufficient to tackle the production and consumption of these products, as they focus chiefly on **limited solutions to the marine litter problem**. In addition, the SUP Directive excludes nappies from its scope and does not provide concrete measures to support the transition, availability and accessibility of reusable products.

# Legal framework for general product safety

The toxicity of the materials used as components in the production of single-use menstrual products, nappies and wet wipes is an important environmental and health consideration. This is regulated by Directive 2001/95/EC on general product safety.<sup>4</sup> According to this legal framework, the products discussed here comply with the regulatory requirements to be considered 'safe products'. However, **recent studies** have revealed further pertinent information about the associated health impacts of single-use menstrual products and nappies, which remain outside the scope of EU legislation.

# Legal framework for urban wastewater

One of the environmental and economic impacts associated with waste generated by the use of single-use menstrual products and wet wipes are the problems resulting from these items being flushed down toilets. However, the EU legal framework for urban wastewater does not regulate the disposal of single-use menstrual products and wet wipes.

# **European strategies and communications**

As the products covered here are primarily made from plastic, some of the measures listed in the European Strategy of Plastics in a Circular Economy<sup>5</sup> (e.g. measures to improve separate collection of plastic waste, guidance on eco-modulation of Extended Producer Responsibility (EPR) fees, guidelines on separate collection and sorting of waste) could help to address the environmental and economic impacts of their consumption and production. Similarly, the European Green Deal, 6 which foresees the adoption of a new EU Circular Economy Action Plan, could be an opportunity to address the legislative gaps identified in this study and to include sustainable product policies that prioritise reduction and reuse.



# Instruments to reduce the environmental impacts of single-use menstrual products, nappies and wet wipes

Having analysed the existing EU legal framework and identified legislative gaps, a set of different types of instruments was identified to address the impacts of the production and consumption of single-use menstrual products, nappies and wet wipes. These instruments can comprise:

- Communication and educational instruments, including communication campaigns.
- Regulatory instruments, including economic instruments (e.g. eco-taxes, EPR schemes with eco-modulation of fees, taxes, subsidies) and other regulatory instruments, such as separate collection obligations, market restrictions, consumption reduction targets, and municipal ordinances and regulations.
- Collaborative instruments, including agreements among retailers, manufacturers and other relevant stakeholders.

These instruments aim to address the impacts of production, consumption and disposal of single-use menstrual products, nappies and wet wipes, while simultaneously encouraging a reduction in their consumption and promoting reusable and toxic-free alternatives. A combination of different measures (e.g. regulatory and communication instruments) is likely to be most effective, as they can be complementary to reaching the desired objective. For example: a subsidy or tax reduction to increase the consumption of reusable products aligned with communication campaigns informing consumers about their benefits.

This study describes a variety of these instruments, some of which have been implemented in several regions in Europe (and beyond) and can thus inspire other regions to follow suit.

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# Policy recommendations

A series of policy recommendations are proposed here, applicable at European, national and regional level. They aim to regulate the production, consumption and disposal of single-use menstrual products, nappies and wet wipes. They are also intended to support the transition towards reusable and toxic-free products and reuse systems in order to prevent and reduce the environmental, economic, and social impacts of these single-use items.

A European strategy to ensure that all menstrual products, nappies and wipes are primarily reusable and recycled effectively

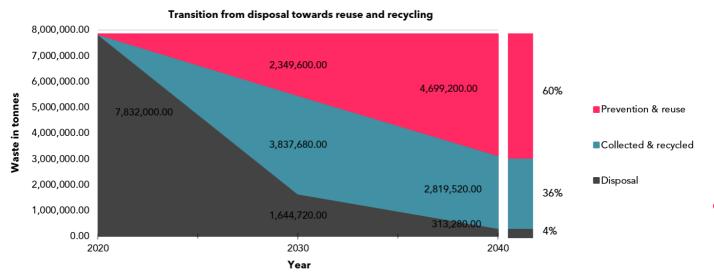
In line with the circular economy and the European Green Deal,<sup>6</sup> the European Commission should adopt a strategy to increase the market for reusable menstrual products, nappies and wipes, while ensuring that their single-use equivalents are collected separately and recycled effectively. This strategy should include financial incentives to promote reusable products and systems and to make them more competitive. It should also address the presence of toxic chemicals in these products by imposing restrictions in existing product safety legislation or other legal frameworks.

Some of the key recommendations are:

- Set reuse targets for menstrual products, nappies and wet wipes of 30% by 2030, increasing to 60% by 2040.
- Set separate collection targets for recycling of single-use menstrual items, wet wipes and nappies: 40% by 2025, 70% by 2030, 90% by 2040.
- Establish **EPR schemes with eco-modulation of fees** for all of these items (covering the costs of awareness-raising measures, the collection, transport and treatment of products, clean-up costs, data gathering and reporting), with part of the fees dedicated to financing the transition from single-use to reusable systems (e.g. local washing systems for reusable nappies) and, in the case of menstrual items, for those organisations or programmes fighting menstrual poverty.
- Set binding requirements for manufacturers to phase-out hazardous chemicals and eliminate the use of toxins in their products.

By implementing these recommendations, the future scenario for menstrual products, baby nappies and wet wipes in the EU-28 would look very different. With the target of 60% prevention and reuse, waste generation would be reduced by 4,699,200 tonnes in 2040. Of the remaining 3,132,800 tonnes, 90% should be separately collected for recycling, and only 10% would need to be treated as residual waste. This means reducing residual waste in this sector from 7,832,00 tonnes to 313,280 by 2040, that is an overall reduction of residual waste of 96% in 20 years.

This transition is represented in the graphic below:



# National initiatives in the framework of the transposition of the SUP Directive

The transposition and implementation phase of the SUP Directive<sup>3</sup> presents a good opportunity for Member States to commit to more ambitious waste prevention measures and facilitate the development of reuse models by:

- Expanding the items covered under the **SUP Directive to include nappies**.
- Extending the **current cost coverage of EPR for wet wipes** to cover the collection, transport and treatment of these products.\*
- Expanding the scope of EPR to menstrual products and nappies, covering at least the costs of awareness-raising measures, their collection, clean-up, transport and treatment, data gathering and reporting.



<sup>\*</sup> EPR schemes for wet wipes in the SUP Directive include only the costs of awareness-raising measures, cleaning up litter, data gathering and reporting.

- Setting legally **binding consumption reduction targets** for single-use menstrual products, nappies and wet wipes, as well as reuse targets (e.g. 30% by 2030 and 60% by 2040).
- Making mandatory the separate collection of this product category.
- Setting separate collection targets for recycling of single-use menstrual items, wet wipes and nappies - 40% by 2025, 70% by 2030, 90% by 2040.
- Reducing or eliminating taxes on reusable menstrual products, nappies and wipes.
- Introducing economic incentives for reusable products and reuse systems to overcome barriers to entry, such as capital investment in nappy-washing facilities.
- Making the availability of reusable products mandatory, to at least the same extent as single-use products (50/50) in all national retail outlets.
- Ensuring clear and legible marking/labelling requirements for these products, on each sales unit and on their packaging, including information on the presence of plastics and chemicals, and the appropriate waste management options/waste disposal means to be avoided.

### Local initiatives towards zero waste cities and communities

Together with the implementation of EU legislation and zero waste strategies, local initiatives are crucial in accelerating the transition towards zero waste at city level and supporting local zero waste business models to grow. For example, municipalities can implement specific regulations to restrict the use of single-use products in public facilities within their jurisdictions, as well as designing local waste ordinances and fiscal ordinances to promote reusable solutions. For citizens, imposing taxes on the most polluting items and/or individualised waste management models (e.g. Pay-As-You-Throw (PAYT) systems) can create incentives to reduce their consumption of single-use products.

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# INTRODUCTION

In recent years, the emergence of new regulatory frameworks on the circular economy and waste prevention, including the EU Strategy for Plastics in the Circular Economy,<sup>5</sup> and the European Green Deal, 6 have accentuated the move towards an economy where resources are used efficiently, with products and processes designed to avoid volumes of waste and toxicity of materials.

In the ideal circular economy scenario, if a product cannot be reused, repaired, rebuilt, refurbished, recycled or composted, it should be restricted, redesigned or removed from production.

This is the case for single-use menstrual products, nappies and wet wipes, which continue to dominate the market despite not being designed to be reused, composted or recycled efficiently. Not only do they prevail over reusable alternatives, their consumption in Europe has increased in recent years.

These products are primarily made of plastic and sometimes contain toxic chemicals. Their production and consumption models have significant environmental impacts, such as littering, marine pollution and health issues. In addition, the lack of EPR schemes forces public administrations to assume the costs of their collection and management once they become waste.

This study complements a previous analysis of the environmental and economic impacts of single-use menstrual products, baby nappies and wet wipes in Europe.8 Understanding the scale of the problem underpins the call for policy action at European, national and regional level.

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# **Aim**

This study aims to develop a set of normative and technical proposals at European, national and regional level to prevent and reduce the impacts of the production and consumption of single-use plastic menstrual products, nappies and wet wipes, in line with the EU Plastic Strategy<sup>5</sup> and the Circular Economy Action Plan.<sup>7</sup>

# **Objectives**

- Analyse the existing legal and normative framework for single-use menstrual products, nappies and wet wipes in order to identify current opportunities for their regulation, as well as relevant gaps and limitations.
- Identify and propose a set of legal and technical measures to achieve an effective reduction in the residual waste fraction and the environmental, economic and social impacts linked to the consumption and production of single-use menstrual products, nappies and wet wipes.
- Provide reliable and relevant information to underpin the call for policy action at EU, national and regional level, including EPR for the products covered here.
- Promote the availability of reusable and toxic-free menstrual products, nappies and wet wipes across Europe.

# Scope

The study consists of an analysis of single-use menstrual products, nappies and wet wipes. Given their economic, social, and environmental impacts (including their contribution in weight to the municipal solid waste stream), these items require special attention and the adoption of specific measures to prevent or minimise their impact. The items addressed in this study are:

- Single-use menstrual products, i.e. pads, tampons and tampon applicators.
- Single-use nappies.
- Single-use wet wipes.

The reusable products analysed are:

- Menstrual cups.
- Period underwear and washable cloth pads.
- Reusable nappies.
- Reusable wipes and towels.

Some of the products examined (menstrual products and wet wipes) are addressed in the new SUP Directive,<sup>3</sup> as they are among the top 10 single-use plastic products most frequently littered on European beaches and seas. The Directive does not, however, address the reusability aspect of these items, nor the accessibility and availability of reusable products. It similarly excludes nappies, which are another single-use product made primarily from plastic, that impose significant environmental impacts and economic costs on municipalities and consumers.

This study identifies and analyses the legal barriers and opportunities to prevent and reduce the economic and environmental impact of single-use menstrual products, nappies and wet wipes, and to support the transition towards reusable products and systems.

The legal analysis is generally orientated towards the EU (EU-28) as a whole and is limited to the EU-28 legislative framework.



# **METHODOLOGY**

The work was carried out in three phases:

# Legal framework analysis

This section identifies and analyses the European regulatory framework - including EU, national and regional level - that regulates the products covered in this study. This policy review does not analyse legal frameworks such as the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), European decisions or resolutions.

This policy review was commissioned by Insta - Serveis Jurídics Ambientals, a legal firm specialising in environmental law.

# Instruments to reduce the impact of single-use menstrual products, nappies and wet wipes

This section describes existing initiatives intended to minimise the environmental impact and economic costs associated with the consumption and production of single-use menstrual products, nappies and wet wipes, as well as those supporting reusable and toxic-free products and systems at European, national and regional level.

This section is not intended to be exhaustive but, rather, to identify key initiatives that demonstrate the appropriate implementation of a particular kind of instrument. Each selected initiative includes the following points:

- Name of the initiative.
- Type of measure implemented: whether communication and educational, economic, regulatory or collaborative.
- Items addressed: menstrual products, nappies, wet wipes, all waste or waste collected with the residual fraction.
- Region: where the initiative exists or is shortly to be launched.

- · Geographical level of implementation: territorial scope of the initiative (international, national, regional, local).
- Date of implementation.
- Target: the target audience for the initiative such as manufacturers, producers, all stakeholders, etc.
- Short description of the initiative.
- Further information: link to the website of the initiative or to another source of information.

# Policy recommendations

Finally, based on all of the information collected, a series of regulatory and technical proposals are laid, applicable at European, national and regional level. These aim to regulate the production and consumption of single-use menstrual products, nappies and wet wipes, as well as supporting reusable and toxic-free products and systems at all levels.



Five European legal frameworks were identified for the regulation of single-use menstrual products, nappies and wet-wipes. These are analysed in detail below.

# Waste management and packaging waste

The main European legislative framework for the management of waste and packaging waste of the products at issue here are the Waste Framework Directive 2008/98/EC (WFD)<sup>1</sup> and the Packaging and Packaging Waste Directive 94/62/EC (PPWD).<sup>2</sup> The following regulations are also relevant:

- Directive (EU) 2018/851 of the European Parliament and the Council of 30 May 2018,<sup>10</sup> amending Directive 2008/98/EC on waste.
- Directive (EU) 2018/852 of the European Parliament and the Council of 30 May 2018,<sup>11</sup> amending Directive 94/62/EC on packaging and packaging waste.
- Commission Decision 2014/955/EU, of 18 December 2014, 12 amending Decision 2000/532/EC on the list of waste<sup>13</sup> in accordance with Directive 2008/98/EC of the European Parliament and the Council.

# **Analysis**

The waste generated by the production and consumption of single-use menstrual products, nappies and wet wipes is not specifically regulated by the WFD.

The list of waste (derived from Decision 2014/955/EU)<sup>12</sup> makes only a brief reference to nappies, which the Decision considers sanitary waste:

# Waste list:

Code: 18 01 (Wastes from natal care, diagnosis, treatment or prevention of disease in humans).

18 01 04 wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example, dressings, plaster casts, linen, disposable clothing, nappies)

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This assumption generates two different hypotheses, as outlined below.

# (1) Single-use menstrual products, nappies and wet wipes are sanitary waste

If single-use menstrual products, nappies and wet wipes are considered sanitary waste, it should be noted that there is no specific waste prevention or waste management requirements contained in any European regulation.

At national level, a legal framework that could help to define the status of such waste was identified in Catalonia in Spain. According to Catalan legislation, sanitary waste is defined in Article 2 of Decree 27/1999 of 9 February on the management of sanitary waste, as 'substances and objects generated in health centres, services and healthcare establishments of which their owners or producers are getting rid or have an obligation to get rid of them.'14

The Spanish regulatory framework for sanitary waste would not, however, apply to the products at issue here. Firstly, it covers only sanitary waste generated by centres, services and healthcare establishments, while most of the waste generated by the use of singleuse menstrual products, nappies and wet wipes comes from the domestic environment. A significant gap would thus remain. Secondly, because the Spanish regulatory framework considers such products 'non-special waste' (Article 2.2 Group II of Decree 27/1999 in the Catalan legislation), 14 they are considered municipal waste (normal waste). There are no requirements for reuse or recycling of these products and their waste is managed like municipal waste.14

**Takeaways:** Waste generated by the consumption of single-use menstrual products, nappies and wet wipes could not be considered 'sanitary waste' within the EU legal framework even if there were specific waste prevention or waste management measures to deal with them. The waste generated by these products is thus dealt with as municipal waste.

# (2) Single-use menstrual products, nappies and wet wipes are municipal waste

The definition of municipal waste is established under Article 3(2b) WFD amendment<sup>10</sup>

### municipal waste means:

- (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture;
- (b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households; Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste. This definition is without prejudice to the allocation of responsibility for waste management between public and private actors.

It is thus possible to conclude that single-use menstrual products, nappies and wet wipes are included in the scope of municipal waste, as they are similar in nature and composition to household waste.

If considered municipal waste, management of the waste accruing from single-use menstrual products, nappies and wet wipes follows the same requirements as those for municipal waste in respect of the prevention, reuse and recycling objectives set by the EU and Member States.

However, the legal framework for municipal waste does not require the separate collection of single-use menstrual products, nappies and wet wipes. The absence of separate collection of such items results in contamination of the waste bin and hampers the recycling process.

In the private context, some companies and governments provide users with specific containers for the disposal of single-use menstrual products and nappies in some adapted centres. Similarly, some Member States, such as Italy and Spain, require this

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separate collection. 15,\* This measure is not effective, as the waste is collected and managed as normal/residual waste, which is neither treated nor recycled.

In fact, less than 1% of single-use nappies in Europe are separately collected for recycling and whilst recycling of single-use nappies is currently happening in the Italian region of Veneto, the experience proves that recycling is not possible unless this product category is separately collected.

**Takeaways:** Although single-use menstrual products, nappies and wet wipes are included in the scope of municipal waste, the legal framework for municipal waste management does not require the separate collection of such items, resulting in contamination of waste bins and hindering the recycling process. The majority of these products thus end up in landfills or incinerators.

# Medical devices

Medical devices have a specific EU regulatory framework. This section examines whether menstrual products, nappies and wet wipes can be considered medical devices.

The relevant European regulations are:

- EU Regulation 2017/745 of the European Parliament and the Council of 5 April 2017 on medical devices, repealing the previous regulations.<sup>16</sup>
- Council Directive 90/385/EEC of 20 June 1990 on the approximation of the laws of the Member States relating to active implantable medical devices. 17
- Council Directive 93/42/EEC of 14 June 1993 concerning medical devices.

While there are some regulations on in vitro healthcare products, they are not included here as they go beyond the nature of the products covered by this report (e.g. Directive 98/79/EC of the European Parliament and the Council of 27 October 1998 on in vitro diagnostics medical devices).<sup>19</sup>

### **Analysis**

Council Directive 93/42/EEC Article 1(2)<sup>18</sup> defines medical devices, as follows:

<sup>\*</sup> According to Annex V, section A, point 7 of the Spanish Royal Decree 486/1997 on the minimum health and safety provisions in the workplace, three special containers for single-use menstrual products should be installed in women's toilets.

'medical device' means any instrument, apparatus, appliance, material or other article, whether used alone or in combination, including the software necessary for its proper application, intended by the manufacturer to be used for human beings for the purpose of:

- diagnosis, prevention, monitoring, treatment or alleviation of disease,
- diagnosis, monitoring, treatment, alleviation or compensation for an injury or handicap,
- investigation, replacement or modification of the anatomy or of a physiological process,
- control of conception, and which does not achieve its principal intended action in or on the human body by pharmacological, immunological or metabolic means, but which may be assisted in its function by such means.

**Takeaways:** The definition itself makes it clear that menstrual products, nappies and wet wipes cannot be considered within the EU legal framework for medical devices.

# Single-use plastics

Single-use menstrual products and wet wipes are partly regulated by the SUP Directive<sup>3</sup> on the reduction of the impact of certain plastic products on the environment.

Article 1 of the SUP Directive, for example, states that its objective is to 'prevent and reduce the impact of certain plastic products for the environment, particularly the aquatic environment and human health, and promote the transition to a circular economy business models, innovative and sustainable products and materials.'

# **Analysis**

# Scope of the SUP Directive

The SUP Directive<sup>3</sup> addresses the single-use plastic products most frequently found on the beaches and seas of Europe, including single-use menstrual products and wet wipes. The definitions of 'single-use plastic product' and 'plastic' used in the Directive are provided below:

"single-use plastic product" means a product that is made wholly or partly from plastic and that is not conceived, designed or placed on the market to accomplish, within its life span, multiple trips or rotations by being returned to a producer for refill or re-used for the same purpose for which it was conceived.'

"plastic" means a material consisting of a polymer as defined in point 5 of Article 3 of [REACH] Regulation (EC) No 1907/2006,9 to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified.'

Single-use menstrual products are defined as 'sanitary towels' in the SUP Directive and this category includes single-use menstrual pads, tampons and tampon applicators. Wet wipes are defined as pre-humidified wipes for personal hygiene and home use.

When it comes to the scope of the SUP Directive,<sup>3</sup> a recent study identified a potential loophole in its definition of plastics. The study carried out by Eunomia<sup>20</sup> focused on wet wipes and their potential substitution by other single-use materials (e.g. lyocell and viscose), which could lead to regrettable material substitutions by other single-use materials with an equivalent (or greater) environmental impact. Allowing for such material substitution would undermine the objective of the SUP Directive when it comes to reducing the impact of single-use products on the environment.<sup>21</sup>

# **Measures**

The SUP Directive introduces different legal measures for each of the product groups it regulates, depending on factors such as the availability of sustainable alternatives, the feasibility of changing consumption patterns, and the extent to which the current EU legislative framework already applies to them.

For single-use menstrual products and wet wipes, the Directive addresses their impacts through marking/labelling requirements, awareness-raising measures and EPR obligations, as summarised in Table 1 below.

Product	Marking/labelling requirements (Article 7; Annex, Part D)	EPR obligations (Article 8; Annex, Part E. II)	Awareness-raising measures (Article 10; Annex, Part G)
Wet wipes	X	X*	X
Sanitary towels, tampons and plastic tampon applicators	X		X

Table 1: Parts of the Annex to the SUP Directive that regulate the waste of the products covered by this report.

# Marking/labelling requirements

According to the SUP Directive, Member States are obliged to ensure that the single-use plastic products listed in part D of the Annex include, either in their packaging or in the products themselves, consumer information about waste management and the environmental impact of inadequate disposal. It also states that the Commission will establish label specifications to harmonise this information. This measure is designed to reduce consumer disposal of these products by flushing them into the sewage system or other inappropriate methods.<sup>3</sup>

In each case, the label must be conspicuous, clearly legible and indelible, and include information on:

- Appropriate waste management options or waste disposal means to be avoided.
- Presence of plastic in the product.
- Negative impact of littering or other inappropriate means of waste disposal on the environment.

<sup>\*</sup> EPR schemes cover the costs of awareness-raising measures, cleaning up litter, transport and treatment, data gathering and reporting.

This marking obligation will be required for all single-use menstrual products and wet wipes from 3 July 2021.

# **EPR** obligations

In accordance with the 'polluter pays' principle,\* the SUP Directive requires EU Member States to expand producers' waste liability in respect of some single-use plastic products. Of the products at issue here, however, only wet wipes are covered by the EPR obligations.\*

Article 8 of the SUP Directive establishes the costs to be borne by producers under EPR schemes:

- Awareness-raising measures.
- Clean-up, transport and treatment of litter from those products.
- Data gathering and reporting (in accordance with Article 8, paragraph 1, point C of the WFD).

The SUP Directive does not require mandatory implementation of separate waste collection systems within the framework of EPR schemes.

In relation to clean-up costs, the SUP Directive sets out that:

- Clean-up costs should be limited to activities regularly implemented by the public authorities or on their behalf (e.g. road-cleaning services, which must be provided by city councils).
- The calculation methodology will be developed to ensure that cleaning costs can be established in a proportionate way.
- Member States may determine the financial contributions for the clean-up costs through the establishment of multi-year fixed quantities.
- To facilitate the calculation of costs, the European Commission (in consultation with Member States) will publish quidelines on the applicable criteria.

EPR schemes for wet wipes must be implemented by 31 December 2024, with the exception of any existing EPR schemes established before 4 July 2018.

<sup>\*</sup> The 'polluter pays' principle is an environmental policy principle that requires those producing pollution to bear the costs of managing it so as to prevent damage to human health or the environment. This principle can act as an incentive for producers to implement measures to prevent potential pollution, comply with regulations and avoid additional costs.

<sup>\*</sup> With the exception of industrial wipes (i.e. just pre-humidified personal care and domestic wipes).

# Awareness raising measures

According to Article 10 of the SUP Directive,<sup>3</sup> Member States must take measures to inform and encourage responsible behaviour in order to reduce littering of all relevant products (except for those that will be banned), including single-use menstrual products and wet wipes.

The SUP Directive requires Member States to adopt measures to raise consumer awareness of:

- Availability of reusable alternatives, reuse systems and waste management options for listed items.
- Impact of littering and other inappropriate waste disposal of listed items, particularly on the marine environment.
- Impact of inappropriate means of waste disposal of listed items on the sewer network.

In the case of single-use plastic products subject to EPR schemes (i.e. wet wipes), the costs of the awareness-raising measures must be borne by the producers.

# Transposition in Member States

The deadline for the transposition of the SUP Directive is 3 July 2021 (Article 17(1)), but some specific periods are established for certain measures, such as EPR.

The SUP Directive has its legal basis in Article 192 of the Treaty on the Functioning of the European Union.<sup>22</sup> It is therefore an environmental-based policy and Member States may opt to approve more ambitious measures.

# Relation to other waste regulations

The SUP Directive may address some issues that have been regulated by the EU Waste Directives. 1,2 Here, the SUP Directive<sup>3</sup> is a lex specialis with respect to the other two regulations, meaning that in case of conflict, the SUP Directive must prevail within their scope of application. This can happen, for example, with the market restrictions of some single-use plastic products.

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**Takeaways:** The measures and requirements established under the SUP Directive for single-use menstrual products and wet wipes are insufficient to tackle the environmental and economic impacts of production and consumption of these products, as they are (largely) limited to solving the marine litter problem. The SUP Directive does not include nappies in its scope, nor does it establish EPR obligations for single-use menstrual products. In addition, it does not provide a concrete measure to support the transition, availability and accessibility of reusable products. Finally, its restrictive definition of plastics could lead to regrettable material substitutions that may have equivalent (or greater) environmental impacts.

# General product safety

An important environmental and health impact to consider is the toxicity of the component materials in the production of single-use menstrual products, nappies and wet wipes.

At European level, this is regulated by:

- Directive 2001/95/EC of the European Parliament and the Council of 3 December 2001 on general product safety.<sup>4</sup>
- Amended by Regulation (EC) No 765/2008 of the European Parliament and the Council of 9 July 2008.<sup>23</sup>
- Amended by Regulation (EC) No 596/2009 of the European Parliament and of the Council of 18 June 2009.24

### **Analysis**

Directive 2001/95/EC<sup>4</sup> applies to any product placed on the market, or otherwise supplied or made available to consumers, intended for consumers, or likely to be used by consumers under reasonably foreseeable conditions even if not intended for them. It thus requires producers to ensure that their products placed on the market are safe and to take corrective measures where this is not the case.

These regulations guarantee compliance with general safety rules, meaning that consumers can enjoy those products deemed safe. According to Article 2 of Directive 2001/95/EC,<sup>4</sup> a safe product is:

Any product that, under normal or reasonably foreseeable conditions of use, including the conditions of duration and, if applicable, commissioning, installation and maintenance, does not present any risk or only minimal risks, compatible with the use of the product and considered admissible within the respect of a high level of protection of the health and safety of people, considering, in particular, the following elements:

- i. characteristics of the product, including its composition, packaging, assembly instructions and, where appropriate, installation and maintenance,
- ii. effect on other products when it is reasonably possible to foresee the use of the first together with the second,
- iii. presentation of the product, labelling, possible warnings and instructions for use and disposal, as well as any other indication or information regarding the product,
- iv. categories of consumers who are in conditions of risk in the use of the product, particularly children and the elderly.

The possibility of obtaining higher levels of security or obtaining other products that present a lesser degree of risk will not be a sufficient reason to consider this product dangerous.

**Takeaways:** The products at issue here comply with the regulatory requirements to be considered 'safe products' within this legal framework. However, recent studies<sup>8</sup> have revealed that the toxins often found in single-use menstrual products and nappies have a wide range of associated health impacts for the consumer. This is critical when considering the full context of single-use menstrual items, nappies and reusable products. There is no specific EU legislation addressing this issue. In some Member States, such as France, studies on nappies are ongoing, with the intention of regulating the issue.<sup>25</sup>

# Urban wastewater

One of the environmental impacts associated with the waste generated by single-use menstrual products and wet wipes, in particular, is the problems caused when these items are flushed down the toilet. The EU Directives regulating urban wastewater are included here for this reason.

The main EU regulations in urban wastewater management are:

- Council Directive 91/271/EEC of 21 May 1991 concerning urban wastewater treatment.<sup>26</sup>
- Directive 2000/60/EC of the European Parliament and of Council of 23 October 2000 establishing a framework for Community action in the field of water policy.<sup>27</sup>
- Directive 2008/105/EC of the European Parliament and of Council of 16 December 2008 on environmental quality standards in the field of water policy, repealing and amending other regulations.<sup>28</sup>
- Commission Implementing Decision (EU) 2015/495 of 20 March 2015, establishing a watch list of substances for Union-wide monitoring in the field of water policy pursuant to Directive 2008/105/EC.<sup>29</sup>

# **Analysis**

None of the regulations analysed regulate the products covered by this report.

**Takeaways:** Despite the environmental impacts (marine litter) and the economic costs incurred by these products finding their way into public sewer systems, the EU legal framework for urban wastewater does not regulate their disposal.

# European strategies and communications

# European Strategy of Plastics in a Circular Economy

As the products covered under this report are made mainly with plastics, the European Strategy of Plastics in a Circular Economy<sup>5</sup> plays an important role in tackling the environmental and economic impacts of their consumption and production.

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# **Analysis**

The EU Strategy of Plastics in a Circular Economy is based on four key pillars:

- More sustainable use and disposal of plastics.
- Improvement of the economy and the quality of plastic recycling.
- Reduction of plastic waste and its abandonment in the environment.
- Increase in innovation, investment and efforts to create a global action to tackle plastic pollution.

Specific objectives are set out in the Strategy, such as:

- By 2030, all plastic packaging placed on the EU market is either reusable or can be recycled in a cost-effective manner.
- By 2030, more than half of plastic waste generated in Europe is recycled.
- By 2025, 10 million tonnes of recycled plastics find their way into new products on the EU market.

The Strategy also provides a list of legal measures to support the achievement of these goals, including measures aiming to:

- Improve the economics and quality of plastic recycling (improve product design, boost recycled content, improve separate collection of plastic waste).
- Curb plastic waste and littering (action on single-use plastics, compostable and biodegradable plastics).
- Drive investment and innovation towards circular solutions (eco-modulation of EPR fees, etc.).

Takeaways: Some of the measures listed in the EU Plastic Strategy in a Circular Economy could help to address the environmental and economic impacts of single-use menstrual products, nappies and wet wipes, as such items are primarily made from plastic. Measures include separate collection of plastic waste, guidance on eco-modulation of EPR fees, and guidelines on separate collection and sorting of waste. Despite being launched in January 2018, many measures have not yet been concretised and should be monitored by the Commission in the coming years.

# European Circular Economy Action Plan as part of the European Green Deal

On 11 December 2019, the European Commission released its communication on the European Green Deal, 6 one of whose pillars is a 'zero pollution ambition for a toxic-free environment'. As part of the European Green Deal, the European Commission will publish the Circular Economy Action Plan in March 2020.<sup>7</sup>

# **Analysis**

Among other initiatives, the European Green Deal Communication foresees the adoption of a new EU circular economy action plan, including a sustainable product policy that has reduction and reuse as a priority. It intends to 'foster new business models and set minimum requirements to prevent environmentally harmful products from being placed on the EU market'. EPR schemes are also expected to be expanded and strengthened.

The forthcoming EU circular economy action plan will focus on resource-intensive sectors, such as textiles, construction, electronics and plastics.

**Takeaways:** The European Green Deal presents an opportunity to address the legislative gaps identified here in respect of the environmental and economic impacts of single-use menstrual products, nappies and wet wipes. To achieve the EU Green Deal goals, new regulations will need to be enacted and many of the existing EU policies revisited/revised. That could allow the inclusion of measures for the products covered here, including appropriate legal and economic incentives to support reusable systems and products.



Together with the legal framework, initiatives addressing the lifecycle of single-use menstrual products, nappies and wet wipes, and the participation of all stakeholders involved in the production and consumption of such items, foster synergies that are likely to be more effective in achieving significant results.

Several regions in Europe (and beyond) have designed and implemented initiatives to reduce (directly or indirectly) the environmental and economic costs of the consumption and production of single-use nappies, menstrual products and wet wipes, as well as promoting reusable alternatives.

These initiatives can be communication and educational, economic, regulatory or voluntary collaboration agreements. Each can help to:

- Address the environmental and economic impacts of single-use menstrual products, nappies and wet wipes.
- Encourage reduced consumption of these items.
- Promote reusable products and systems.

Such initiatives can be directed towards one or more stakeholders involved in the production and consumption of these single-use products, such as manufacturers, distributors, public administrations and consumers. Similarly, they can be implemented at European, national, regional or local level.

Some examples of these initiatives are described below. Although local contexts may vary, these can serve to inspire and encourage other regions to tackle similar issues.

# Communication and educational instruments

Communication and educational instruments aim to ensure that citizens can make informed purchasing choices and to change consumer behaviour through awareness of the environmental, economic and health costs of single-use menstrual products, nappies and wet wipes. These kinds of instruments can usefully provide information about product composition and the impact of inappropriate disposal, for example through the sewer system.

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They can act as a dynamic tool to improve the visibility and relevance of the environmental, economic and social advantages of reusable products, increasing consumer acceptance and promoting their usage. They can also be used to inform commercial consumers (e.g. commercial establishments, nurseries, pharmacies, etc.) about the availability of reusable products and their respective distributors.

The main communication and educational instruments are:

- Education and communication campaigns.
- Learning activities: courses, conferences, workshops and seminars.
- Publications: guides and manuals, research studies and reports.
- Other activities: newsletters, press articles, exhibitions.
- Product labels that improve consumer information.

These instruments complement policy measures to reduce the consumption and production of single-use menstrual products, nappies and wet wipes, as well as helping to promote reusable products and systems.

# Examples of communication and education instruments

# Plastic Free Periods campaign

Name of the initiative	Plastic Free Periods campaign
Type of instrument implemented	Education and communication campaign
Items addressed	Menstrual products
Region	UK
Geographical level of implementation	National
Date of implementation/launch	2017
Target	Consumers
PLASTIC FREE PERIODS	The campaign was developed by City to Sea to mainstream reusable and plastic-free disposable menstrual products and to raise awareness that such products should not be flushed away. As part of the campaign, two videos were released. One exposed the impacts of single-use menstrual products and promoted reusable alternatives, while the other used poetry and inspirational people to share positive messages about reusables in a bid to change the narrative. City to Sea also created a short film of four women giving an honest review of a variety of reusable products, and a comprehensive FAQ page for people with questions about reusable products. They ran a pilot programme (Rethink Periods) with 12 schools to test unbiased period education.
Further information	https://www.citytosea.org.uk/plasticfreeperiods/

# Plastic and Toxic Free Periods

Name of the initiative	Plastic and Toxic Free Periods
Type of instrument implemented	Education and communication campaign
Items addressed	Menstrual products
Region	Europe
Geographical level of implementation	International
Date of implementation/launch	2019
Target	Consumers
Short description of the initiative  TOGETHER FOR TOXIC-PLASTIC-FREE PERIO	The campaign consists of a website designed to inform people about the plastic and toxic chemicals in menstrual products, their health and environmental effects, and the availability of more sustainable, plastic and toxic-free options on the market. The site takes a global perspective and provides a platform for NGOs and individuals to share their stories, activities and good practice examples.
Further information	http://ptfperiod.info/

# Plastic and Toxic Free Periods

Name of the initiative	The Real Nappy Campaign
Type of instrument implemented	Education and communication campaign
Items addressed	Nappies
Region	Wales (UK)
Geographical level of implementation	Regional
Date of implementation/launch	2017
Target	Consumers
Short description of the initiative	The Real Nappy Campaign is a waste minimisation campaign that promotes the use of reusable nappies throughout Wales, providing information and advice about choosing reusable nappies to parents, parents-to-be, nurseries, community groups and the health sector. This campaign has been very successful in bringing this issue closer to consumers and public administrations.
Further information	https://gecco.org.uk/real-nappy-campaign/ https://www.recycleforwales.org.uk/reduce/real-nappy- campaign

# Regulatory instruments

Regulatory instruments can be adopted at different levels: local/regional, national, EU and global. Here, they have been divided into two categories for clarity: (1) economic instruments, and (2) other regulatory instruments (e.g. market restrictions, consumption reduction targets).

It is worth emphasising that well-designed EPR schemes can be an effective instrument in bringing about systemic change in the way products are designed, produced and handled and should be the starting point for all regulatory and economic instruments.

# **Economic instruments**

Economic instruments aim to promote the internalisation of environmental costs (e.g. under EPR schemes), enhance and influence sustainable consumption and production patterns, and create a level playing field by ensuring a source of funding for reusable systems and zero waste business models. They may be supported by a regulatory instrument within a legal framework and can be approved at national, regional or municipal level.

Some examples of economic instruments are:

- **Eco-taxes:** These can include taxes on single-use products, taxes on plastic products and tax-cuts for reusable products. Taxes can play an important role in changing behaviours and reducing production and consumption. They are often designed to provide reusable options at an advantageous price compared to the single-use equivalents. A tax could be levied at various phases of the product's lifecycle, depending on the purpose of the tax (reduce production, change producers' practices, change consumer behaviour, etc.).
- **EPR schemes with eco-modulation of fees:** If well implemented, this can be very useful in incentivising better product design. Here, producers pay fees according to the environmental impact of their products throughout their lifecycle. If the scheme is well-designed, implemented and enforced, producers of products designed to be durable, reusable, recyclable and made without hazardous chemicals, will pay lower fees or receive a bonus. By contrast, producers of products that cannot be reused or recycled or that contain hazardous chemicals, pay a higher fee. The breadth of the fee range is an important success factor in incentivising product redesign.

- Taxes linked to waste generation: These instruments (e.g. payment by bag, by adhesive or by container and magnetic card) aim to reduce waste generation and guarantee not only fair distribution of the charges associated with waste management, but also the adoption of the 'polluter pays' principle. Some waste fractions, such as nappies, may be taxed at commercial rather than household level.
- Subsidies, refunds, discounts and centralised public purchase: These encourage the use of reusable items and reward those agents contributing to minimising waste generation through reuse or zero waste practices. For instance, access to free trial kits and/or a library of different styles of reusable nappies to test before purchase may encourage their use.

# Examples of initiatives implementing economic instruments

# PAYT system for commercial waste in Canet de Mar

Name of the initiative	Pay as you throw (PAYT) system for commercial waste in Canet de Mar
Type of instrument implemented	PAYT system
Items addressed	Waste collected with the residual fraction (wet wipes, menstrual products, nappies, etc.)
Region	Canet de Mar (Catalonia, Spain)
Geographical level of implementation	Local
Date of implementation/launch	2010
Target	Businesses
Short description of the initiative	Since January 2010, a PAYT model has been implemented in Canet de Mar, a Catalan municipality with 14,583 inhabitants. The tax is divided into two parts: a basic part that depends on the commercial category of the establishment, and a variable part that depends on the amount of waste generated (residual waste, light containers, organic fractions).
	To control the amount of waste generated, the containers used by businesses are identified with a chip that records the number of times the containers are emptied. This determines the variable part of the tax. For extra residual waste collections, additional quotas are implemented, e.g. nursing homes and kindergartens requiring a daily collection of nappies incur an extra charge.
Further information	https://canetdemar.cat/ARXIUS/ordenances/2019/TRE201 8049015_TR2019_OF29.pdf

# Economic incentives to encourage the use of reusable nappies

Name of the initiative	Economic incentives to encourage the use of reusable nappies
Type of instrument implemented	Subsidies, cash back schemes
Items addressed	Nappies
Region	Flanders (Belgium), 70 municipalities in UK, Capannori (Italy)
Geographical level of implementation	Regional and local
Date of implementation/launch	2004 in Derbyshire (UK), 1997 in Torre Bandone (IT), 2011 in Sant Cugat (SP)
Target	Consumers
Short description of the initiative	In Europe, some local authorities offer economic incentives to encourage the use of reusable nappies in order to reduce waste and avoid waste management costs and environmental impacts.
	In Belgium, for example, about 40% of cities give subsidies to families that use cloth nappies. On presentation of an invoice to the city council, families can receive a refund (typically €100 or more). This measure aims to encourage the use of reusable nappies.
	In the UK, more than 70 municipalities offer economic incentives, such as cash-back schemes, free trial kits and vouchers, to promote reusable nappies. Since 2004, in Derbyshire County, for example, the city council has offered a £25 voucher to encourage people to use reusable nappies. A similar system exists in Milton Keynes, where a cash-back incentive scheme offers families who invest more than £60 in reusable nappies a repayment of £35 to £40. In Leeds, parents can get either a free trial pack or £30 cash-back when they spend £50 on new or second-hand real nappies. One trial pack or cash-back is available per child.
	In Italy, the policy of encouraging washable nappies began in 1997, in the municipality of Torre Bondone, with more than 100 municipalities, provinces and regions now offering a range of incentives. In Colorno (Emilia Romagna), the local administration offers a €50 voucher to buy a reusable nappy kit that costs €120.
	In 2011, in Sant Cugat (Catalonia, Spain), the city council offered 50 families a set of 15 cloth nappies, three nappy boosters and 100 nappy liners to avoid the use of single-use nappies. The sets were subsidised at 75% by the city council.
Further information	https://www.thenappygurus.com/councilnappyschemes.html http://www.comune.colorno.pr.it/notizie/260209-progetto- bimbi-leggeri https://www.leeds.gov.uk/residents/bins-and- recycling/reduce-your-waste

# France's Circular Economy Bill

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Name of the initiative	France's Circular Economy Bill
Type of instrument implemented	EPR scheme
Items addressed	Menstrual products, nappies and wet wipes
Region	France
Geographical level of implementation	National
Date of implementation/launch	EPR implementation by 2024
Target	All stakeholders
Short description of the initiative	The final text of a Circular Economy Bill was agreed by both chambers in the French Parliament in January 2020. The Bill establishes EPR requirements for wet wipes, menstrual products and nappies, and must be implemented by 2024. It established that 2% of the packaging EPR scheme fees will be dedicated to the development of reusable systems (e.g. refillables and bulk sale), which equated to €14 million in 2018. This amount is expected to grow, as the EPR coverage has been extended to include additional waste management costs. In other EPR schemes (e.g. furniture, clothes, toys), the new law has set similar obligations: 5% of the total fees collected will be dedicated to a specific reuse fund within the EPR scheme that will distribute the money through calls for submission.
Further information	http://www.assemblee- nationale.fr/dyn/15/dossiers/alt/lutte_gaspillage_economie_circ ulaire

# Subsidies for reusable nappies and menstrual products (Montreal)

Name of the initiative	Subsidies for reusable nappies and menstrual products in Montreal	
Type of instrument implemented	Subsidies	
Items addressed	Nappies and menstrual products	
Region	Quebec province (Canada)	
Geographical level of implementation	Regional	
Date of implementation/launch	2018	
Target	Consumers	
Short description of the initiative	In 2018, the Montreal borough of Côte-des-Neiges—Notre-Dame-de-Grâce launched a subsidy programme consisting of a two-year pilot project with an annual budget of \$30,000, aiming to cover the purchase and rental of reusable nappies and menstrual products.  The programme reimburses a percentage of the amount spent on the purchase/rental of cloth nappies and reusable menstrual products. It also covers the costs of making such nappies, including the cost of fabric or other materials.  This programme has joined a growing list of places across Quebec that encourage families to move away from single-use nappies and menstrual products.	
Further information	http://ville.montreal.qc.ca/portal/page?_pageid=7657,1431231 70&_dad=portal&_schema=PORTAL	

## Other regulatory instruments

Other types of regulatory instruments can help to address the impacts of the consumption and production of single-use menstrual products, nappies and wet wipes, as well as promoting reusable alternatives.

- Market restrictions (bans/prohibitions): These measures reduce or eliminate from the market (or in certain locations or sectors) specific single-use products or product components, e.g. potentially toxic substances in menstrual products, nappies or wet wipes.
- Reuse targets: These require a minimum percentage of the total volume of sales of some products (menstrual products or nappies) to be reusable. The implementation of such targets would need to be accompanied by other instruments to incentivise and facilitate the production and consumption of these reusable alternatives.
- Consumption reduction targets: These aim to induce a substantial reversal in consumption trends and a measurable quantitative reduction in the consumption of certain products. Like reuse targets, additional measures need to be implemented in order to achieve these targets, such as market restrictions and economic incentives (e.g. taxes, levies, etc.). These targets can also be a useful regulatory instrument to scale-up reusable products and reuse systems.
- Municipal ordinances and regulations: These establish a legal regime in relation to the management of waste in a municipality, both for individuals and for the relevant economic activities. Town councils demand compliance with these regulations and establish sanctions against offenders. The fiscal ordinances that regulate waste taxes can also include quota reductions for those contributors who participate in waste prevention programmes, for example through the use of reusable menstrual products or nappies.

# Examples of other regulatory instruments

# Vanuatu nappy ban

Name of the initiative	Vanuatu nappy ban		
Type of instrument implemented	Market restriction		
Items addressed	Nappies		
Region	Vanuatu		
Geographical level of implementation	National		
Date of implementation/launch	2018, to be phased in at the end of 2019		
Target	All stakeholders		
Short description of the initiative	The state of Vanuatu, an archipelago of 65 islands located in the South Pacific Ocean, with a population of almost 300,000, has proposed a ban on single-use nappies, to be phased in at the end of 2019.		
	The country announced the ban after research by the Commonwealth Litter Programme showed organic waste and single-use nappies represented three-quarters of the total weight of waste produced. The state is consulting with businesses to come up with local alternatives, as well as with NGOs, civil society and other groups.		
Further information	https://www.theguardian.com/environment/2019/jun/22/vanuatu-to-ban-disposable-nappies-in-plastics-crackdown-we-had-no-choice		

#### Nappies (Environmental Standards Bill)

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Name of the initiative	Nappies (Environmental Standards Bill)	
Type of instrument implemented	Bill	
Items addressed	Nappies	
Region	UK	
Geographical level of implementation	National	
Date of implementation/launch	2017 - 2019	
Target	Manufacturers, consumers and local administrations	
Short description of the initiative	The Nappy Bill aims to establish environmental standards for nappies, as well as prohibiting false eco-friendly claims from manufacturers.	
	The Bill advocates that public information should be provided, particularly on the environmental impacts of single-use nappies and the financial advantages of reusable nappies for families and local authorities, so that they can make informed decisions. The Bill also aims to incentivise local authorities across the country to roll out reusable nappy schemes.	
Further information	https://services.parliament.uk/Bills/2017-19/nappiesenvironmentalstandards.html	

#### Local Waste Prevention Plan of Sant Hilari Sacalm

Name of the initiative	Local Waste Prevention Plan of Sant Hilari Sacalm	
Type of instrument implemented	Local Waste Prevention Plan	
Items addressed	All Waste	
Region	Sant Hilari Sacalm (Catalonia, Spain)	
Geographical level of implementation	Local	
Date of implementation/launch	2017	
Target	All stakeholders	
Short description of the initiative	To achieve the prevention goals established by the Catalan government, the municipality of Sant Hilari Sacalm approved a Local Waste Prevention Plan in 2017. The Plan consists of 10 waste prevention measures tackling different waste fractions. In order to reduce the rejection fraction, the Plan includes a specific measure to promote switching to reusable nappies and menstrual products, through:  • Awareness-raising activities (workshops, talks, discussion groups).  • Establishment of public procurement agreements with retailers of reusable products.  • Subsidies for private purchases of reusable nappies and menstrual products.  • Implementation of reusable nappy schemes in local kindergartens.	
Further information	https://www.santhilari.cat/files/pdf/plens/2017/pe200717/Punt%20H%20-%20Pla%20Local%20Prevencio%20Residus%20SHS.pdf	

# Recommendations on the manufacture of single-use baby nappies

Name of the initiative	Recommendations on the manufacture of single-use baby nappies	
Type of instrument implemented	Recommendation	
Items addressed	Nappies	
Region	France	
Geographical level of implementation	National/international	
Date of implementation/launch	2017	
Target	Manufacturers	
Short description of the initiative	In 2019, the French Agency for Food, Environmental and Occupational Health & Safety (ANSES) conducted an assessment of the risks of chemicals found in baby nappies, based on tests conducted by the Joint Laboratories Service and the French National Consumers Institute on various single-use nappy brands available on the French market.  They found a number of hazardous chemicals in single-use nappies that may impact a child's health.  Based on these results, ANSES recommends eliminating these chemicals (or reducing their levels as much as possible) in single-use nappies, reinforcing monitoring of these chemicals in nappies on the market, and implementing stringent regulations for these	
Further information	https://www.anses.fr/en/content/anses-recommends-improving-	
	baby-diaper-safety	

#### Sanitation Ordinance of Valencia

Name of the initiative	Sanitation Ordinance of Valencia	
Type of instrument implemented	Municipal Ordinance	
Items addressed	Wet wipes	
Region	Valencia (Spain)	
Geographical level of implementation	Local	
Date of implementation/launch	2015	
Target	Consumers	
Short description of the initiative	The Sanitation Ordinance of Valencia incorporates significant advances in environmental protection and the city's sanitation network, including the prohibition of flushing wet wipes. The measure aims to reduce the environmental impact and public expense that results from obstruction of sewage pipes. The Sanitation Ordinance of Valencia has already been approved in the plenary of the city council.  The measure establishes sanctions for non-compliance. Offenders could be fined from €750-3,000 (in this latter, it would be paid by the neighbourhood), depending on the severity of the infraction.  Although this Ordinance does not directly reduce consumption of wet wipes, it nevertheless limits the environmental and economic impacts of these products.	
Further information	https://www.levante-emv.com/valencia/2015/04/25/multas-tirar-toallitas-pagara-comunidad/1255964.html https://www.iagua.es/noticias/espana/ayuntamiento-valencia/15/04/27/nueva-ordenanza-saneamiento-valencia-prohibe-verter	

## Collaborative instruments

Collaborative instruments aim to implement voluntary measures among the actors involved in a given process. They are usually based on pacts negotiated between public administrations and relevant stakeholders, e.g. an agreement between producers, waste management agencies and municipalities to set waste prevention objectives.

Types of collaborative instruments are:

- Collaborative initiatives with retailers to incorporate reusable products in their offer, or with manufacturers to remove chemicals from their products, etc. The initiatives can be permanent or temporary (e.g. a pilot project implementing laundry services or reuse schemes for cloth nappies in kindergartens).
- Working groups and agreements between manufacturers, distributors, consumers and administrations to identify existing barriers and opportunities to promote reusable products and to agree actions that will scale them up.

#### **Examples of collaborative instruments**

#### Bambini leggeri

Name of the initiative	Bambini leggeri	
Type of instrument implemented	Collaboration agreements	
Items addressed	Nappies	
Region	Colorno (Emilia-Romagna, Italy)	
Geographical level of implementation	Local	
Date of implementation/launch	2008	
Target	Consumers and kindergartens	
Short description of the initiative  Comune dl Colorno Assessora to al Progetti Formativi	The municipality of Colorno proposed an incentive scheme for washable nappies for both private users (families with children up to three years old) and the town nursery. In 2008, reusable nappies were introduced in the kindergarten, ensuring an internal reusable cycle and certification.  The municipality designed the initiative together with the non-profit organisation, Ecologos. The organisation supervised the launch, contact with, and research into reusable nappy distributors, development of communication materials, and retailer engagement, encouraging retailers to brand themselves 'Leggero Stores' and thereby creating a directory of shops oriented towards environmental protection.  Similar laundry systems exist in other European regions, such as the Netherlands, Belgium, Slovenia, Germany and the UK.	
Further information	http://www.comune.colorno.pr.it/notizie/260209-progetto-bimbi- leggeri	

# Reusable nappies in Catalan kindergartens

Name of the initiative	Reusable nappies in Catalan kindergartens	
Type of instrument implemented	Collaboration agreement and pilot project	
Items addressed	Nappies	
Region	Catalan municipalities (Spain)	
Geographical level of implementation	Local	
Date of implementation/launch	2017	
Target	Consumers and kindergartens	
Short description of the initiative  Legislation of the initiative  Ajuntament de SantGugat  CANVIEM DE BOLQUERS!	Catalonia has had several pilot projects to introduce reusable nappies in kindergartens, which have proven to be an economic saving for schools and families, as well as a way to promote reusable nappies among parents.  One example is a pilot project in the municipality of Torrelles del Llobregat, where the local kindergarten implemented a reuse system for cloth nappies. A laundry service takes the used nappies to wash them and returns them clean to the kindergarten. The system also allows families to be part of the laundry scheme for nappies used at home.  Similar projects have been developed in Sant Cugat del Vallès, Salt, Cabanes and other Catalan municipalities.  Laundry services for nappies are widespread in the US and Australia, with other successful European examples in the UK, the	
Further information	Netherlands and Italy.  http://www.torrelles.cat/fitxer/10667/diptic_bolquers_print.pdf https://www.sostenible.cat/article/sant-cugat-subvenciona- bolquers-reutilitzables-per-a-50-families-5 https://zerowasteeurope.eu/2012/11/nappy-ever-after-a-laundry- service-for-nappies/	

# **POLICY RECOMMENDATIONS**

The following normative and legal measures are proposed to reduce the environmental and economic impacts of the production and consumption of single-use menstrual products, nappies and wet wipes, and to promote reusable products and reuse systems. The policy measures proposed below could be adopted at EU level (within a product policy framework or similar), at national level (within the context of the transposition of the SUP Directive),<sup>3</sup> and at regional level (within a specific regional regulatory context).

# A European strategy to ensure that all menstrual products, nappies and wipes are primarily reusable and recycled effectively

At EU level, it is key that the European Commission lays out a strategy to address product categories that are neither collected separately nor recyclable. Currently, most single-use menstrual items, nappies and wet wipes are disposed of in landfills and incinerators, or find their way into the environment, incurring high costs for taxpayers alongside important environmental impacts.

Single-use menstrual items, nappies and wet wipes are not currently collected separately and end up in the mixed municipal waste bin (residual waste). Given that the separate collection rates for municipal solid waste (MSW) should increase over time - thanks to the newly adopted waste recycling targets<sup>30</sup> - the fraction that single-use menstrual items, nappies and wet wipes represent in the residual waste could grow to represent up to 40% of the residual waste, amounting to almost eight million tonnes across the EU.

For the sake of coherence with EU Circular Economy objectives, the European Commission should adopt a strategy to increase the reusable market for menstrual products, nappies and wipes, while simultaneously ensuring that these single-use items are collected separately and recycled effectively.

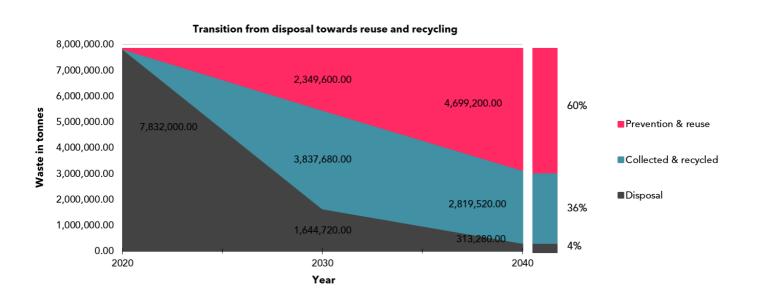
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RECOMMENDATIONS TO MINIMISE THEIR IMPACT ACROSS EUROPE

- Set a reuse target of 30% by 2030, to be increased to 60% by 2040 for menstrual products, nappies and wet wipes.
- Set a **separate collection target for recycling** remaining single-use menstrual items, wet wipes and nappies: **40% by 2025, 70% by 2030 and 90% by 2040**.
- Expand the scope of EPR schemes to cover all of these items, coupled with eco-modulation of fees. This should, at a minimum, cover the costs of awareness-raising measures, collection, transport and treatment, clean-up costs, data gathering and reporting. Part of the fees should be dedicated to a special fund to finance the transition from single-use to reusable systems (e.g. local laundry systems for reusable nappies) and, in the case of menstrual items, for organisations or programmes fighting menstrual poverty.
- Set binding requirements for manufacturers to **phase-out hazardous chemicals** and eliminate the use of toxins in their products.

By implementing these proposals, the future scenario for menstrual products, nappies and wet wipes in the EU-28 would look very different. With the target of 60% prevention and reuse, waste generation would be reduced by 4,699,200 tonnes in 2040. Of the remaining 3,132,800 tonnes, 90% should be separately collected for recycling, and only 10% would need to be treated as residual waste. This means reducing residual waste in this sector from 7,832,00 tonnes to 313,280 by 2040, that is an overall reduction of residual waste of 96% in 20 years.

This transition is represented in the graphic below:



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# National initiatives in the framework of the transposition of the SUP Directive

Although the SUP Directive<sup>3</sup> covers menstrual products and wet wipes, the measures it contains are limited and do not address the source of the impacts generated by their consumption and production (see page 20).

For the SUP Directive transposition and implementation phase (by July 2021), Member States should take the opportunity to include waste prevention measures and facilitate the development of reuse models by:

- Extending the SUP Directive to include nappies.
- Enlarging the current cost coverage of EPR for wet wipes to cover their collection, transport and treatment.\*
- Extending the scope of EPR to menstrual products and nappies, covering at least the costs of awareness-raising measures, their collection, clean-up, transport and treatment, as well as data gathering and reporting.
- Establishing a **dedicated fund** where at least 5% of the **EPR fees** collected are invested in subsidies for prevention and reuse systems (e.g. local washing systems for reusable nappies) and for organisations fighting menstrual poverty (see page 50).
- Setting legally **binding consumption reduction targets** for single-use menstrual products, nappies and wet wipes, together with reuse targets, such as 30% by 2030, and 60% by 2040.
- Making mandatory the separate collection of this product category.
- Setting separate collection targets for recycling single-use menstrual items, wet wipes and nappies of 40% by 2025, 70% by 2030 and 90% by 2040.
- Reducing or eliminating taxes on reusable menstrual products, nappies and wipes.

<sup>\*</sup> EPR schemes for wet wipes in the SUP Directive include only the costs of awareness-raising measures, cleaning up litter, transport and treatment, data gathering and reporting.

- Introducing economic incentives for reusable products and reuse systems to overcome barriers to entry, such as capital investment in nappy-washing facilities.
- Making the availability of reusable products mandatory, to at least the same extent as single-use products (50/50) in all national retail outlets.
- Ensuring clear and legible marking/labelling requirements for all products covered under this study, on each sales unit and on their packaging, including information on the presence of plastics and chemicals, and appropriate waste management options/waste disposal means to be avoided.

## A closer look into EU and national policy recommendations

#### Consumption reduction and reuse targets

Quantitative reduction and reuse targets should be adopted for single-use menstrual products, nappies and wet wipes, which should help to scale-up the reusable products already available in the market. This reduction/reuse target could be 30% by 2030 and 60% by 2040, starting from a baseline set in 2020.

Regular assessment of actual consumption reduction and analysis of the suitability and sufficiency of measures requires periodic monitoring and reporting on consumption trends. To ensure that measures are implemented successfully, a transversal vision that facilitates the cooperation of the different stakeholders involved in the lifecycle of the products is crucial.

## Marking/labelling requirements

Consumer information allows citizens to make informed purchasing choices, as well as driving sustainable consumption patterns. This requirement is already established under the SUP Directive for single-use menstrual products and wet wipes, and should be extended to nappies.

The marking/labelling of these products should comply with the following requirements:

- Clearly legible and indelible, avoid information that misleads consumers.
- Inform consumers of the **presence of plastics and/or chemicals**, including substances classified as hazardous.
- Each sales unit shall carry marking on its packaging.
- Include information on the appropriate waste management options or waste disposal means to be avoided, including the negative impact on the environment of inappropriate disposal (e.g. littering, flushing).
- Inform consumers on the availability and benefits of reusable products.

#### EPR schemes with eco-modulation of fees

**EPR schemes with eco-modulation of fees should be implemented** for single-use menstrual products, nappies and wet-wipes to ensure that the producers of these products cover - at a minimum - the costs of awareness-raising measures, cleaning up litter, collection, transport and treatment, data gathering and reporting.

EPR schemes with eco-modulation of fees - if well structured, duly implemented and monitored - have the potential to encourage producers to better design their products by rewarding environmentally friendly products (toxic-free, reusable, fully recyclable, etc.) and penalising those that are least environmentally friendly.

EPR schemes should extend beyond waste management and include product design by creating incentives to move away from single-use. This can be done through the **creation of transition funds** - amounting to a minimum of 5% of the EPR fees collected - that pay for the set-up of reusable systems (e.g. local washing systems for reusable nappies) and support organisations fighting menstrual poverty.

Such EPR schemes should be regulated within the EU legal framework in order to ensure consistent implementation and maintain the harmonisation of the single market. Some countries, such as France, have already adopted legislative EPR schemes for menstrual products, nappies and wet wipes at national level.<sup>31</sup>

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# EPR schemes

#### **Exploring the social dimension of EPR schemes**

In addition to covering waste collection and management, supporting better product design and reducing waste through effective eco-modulation of fees, EPR fees could also be used to address menstrual poverty.

#### **EPR vs. Menstrual Poverty**

Statistics - where available - show that almost one in five women struggle to pay for basic single-use menstrual products on a monthly basis in the EU. Not being able to afford menstrual products can significantly reduce the quality of a person's life. Those from low-income families in Europe might not be able to attend work, school, or even socialise during their periods (usually around five days a month), impacting on their education, work and long-term prospects.

While producers must bear the costs of the impacts generated by the production, consumption and disposal of their single-use menstrual products, it is also crucial to ensure that those incapable of affording such essential products are not negatively affected by the implementation of EPR schemes.

Therefore, part of EPR fees should be dedicated to a special fund that provides subsidies for organisations and programmes helping to address menstrual poverty and for initiatives promoting reusable products. Given the potential economic savings associated with reusable menstrual products, making them widely available and accessible across the EU can help to reduce menstrual poverty.

In line with that, it is important that Member States monitor the price of single-use menstrual products once the EPR scheme is implemented to prevent that it is leading to price increases for consumers, and if so, measures to balance eventual increase in the price of these products should be adopted.

## Ensuring circular, safe and toxin-free products

Stringent regulatory measures should be implemented at the EU level to phase out (or reduce as much as possible) hazardous substances in menstrual products, nappies and wet wipes preventing users from being exposed to toxic substances linked to certain types of diseases and health impacts. For example, a set of legally binding requirements for manufacturers to eliminate the use of toxins in their products, improve the control of the origin of raw materials (traceability), and reduce the presence of contaminants.

Mandatory regular checks of toxins in products by administrations or third parties to detect any contamination are also essential. The development of further scientific research can also be useful to establish a maximum concentration for each member of the family of dioxins, chlorinated furans and polychlorinated biphenyls (e.g. dioxins (DL-PCBs)) present in menstrual products and nappies.



# **TOXIC TALK**

**Single-use nappies:** A recent risk assessment by ANSES detected a number of hazardous chemicals in single-use nappies that could migrate through urine and enter into prolonged contact with babies' skin. Some of these chemicals are added intentionally, such as fragrances, and may cause skin allergies. Other identified chemicals could come from contaminated raw materials or manufacturing processes.<sup>25</sup>

**Single-use menstrual products:** Many of the conventional single-use menstrual products (pads, tampons) and their packaging contain plastic and other synthetic materials (e.g. rayon, adhesives, artificial fragrances) and toxic chemicals (such as phthalates, bisphenol-A and petrochemical additives), which are recognised environmental pollutants and are also known to be endocrine-disrupting substances with links to heart disease, infertility and cancer. Traces of dioxins (created when these products are bleached white), pesticides and herbicides, including glyphosate, can be found in menstrual products. <sup>32,33</sup>

continued on next page...



Some menstrual products include fragrances/scents<sup>34</sup> that can interfere with the balance between good and bad bacteria. Synthetic fragrances can be made from a cocktail of up to 3,900 chemicals (styrene, chloromethane, chloroform, etc.). Some are identified as carcinogens, neurotoxins, irritants, hormone disruptors and reproductive toxicants.<sup>35,36</sup> The chemicals in these products can also modify an individual's pH balance.<sup>34</sup>

However, they are rarely disclosed on the product by the manufacturer.<sup>37</sup>

**Wet wipes:** The presence of detergents, fragrances and preservatives in wet wipes means that regular use can put babies at risk of allergic reactions. These reactions may be caused by repeated skin contact in an area where soaps have stripped the natural oils from the skin. If wet wipe residue is not rinsed off, babies are then vulnerable to absorbing allergy-causing chemicals.<sup>38</sup>

Further information can be found in the Report on Single-Use Menstrual Products, Baby Nappies and Wet Wipes.<sup>8</sup>

#### **Economic incentives**

Economic incentives are a key element in reducing the impacts of the consumption and production of single-use menstrual products, nappies and wet wipes. They also support reusable products and reuse systems to overcome barriers to entry, such as capital investment in nappy-washing facilities. Among the economic instruments that could be implemented at national, regional or local level – depending on the specific national context - are:

- Eco-tax for single-use products, VAT exception or reduced VAT for reusable products.
- **Effective EPR eco-modulation of fees** to incentivise better product design and minimise impacts across the product's lifecycle.
- Centralised public system for buying reusable menstrual products, nappies
  and wipes more economically or subsidising their purchase through
  vouchers, discounts or cash-back schemes, to encourage the use of reusable
  menstrual items and nappies and to reward those contributing to the minimisation
  of waste.

Other economic measures that can indirectly promote reusable products and reduce waste generated by the consumption of single-use items are:

- Municipal taxes linked to waste generation.
- Implementation of systems that allow individualised waste collection for both households and businesses (payment by bag, by adhesive or by container and magnetic card, etc.).
- Bonus system on waste tax where consumers or businesses promote/use reusable products.
- Landfill and incineration taxes.

# Mandatory availability of reusable products in all retailers shops

In addition to establishing key economic incentives, legally binding regulatory measures help to ensure that reusable and toxin-free menstrual products, nappies and wipes are made available across the EU, in all large retail outlets, including supermarkets, convenience stores, pharmacies, etc. to at least the same extent as their single-use equivalents. Promoting reusable products encourages people to reduce their consumption of single-use menstrual products, nappies and wet wipes, with an associated reduction in their environmental, economic and social impacts.

Alongside regulatory instruments, communication and information initiatives can be useful to share detailed local information on suppliers (e.g. washing services for nappies), increasing the visibility of those services and retailers offering reusable options.

## Local initiatives towards zero waste cities and communities

Local municipalities can implement specific regulations to ban the use of wet wipes at public facilities within their jurisdiction, such as kindergartens or nursing homes. Similarly, they can design local ordinances that encourage the substitution of single-use nappies with reusable ones at public kindergartens. Municipalities across Europe are implementing local fiscal ordinances that regulate waste management fees for residents, which may include rebates for users/consumers of reusable products. In municipalities that specifically want to address and prevent the use of wet wipes and single-use nappies, Pay-As-You-Throw (PAYT) systems can be designed and tailored to incentivise citizens to switch to reusable options.

Local municipalities can create and offer subsidies for community businesses to run pilot schemes for the use, collection and laundry service of reusable nappies, designed to support and promote the introduction of reusable nappies into kindergartens and private homes. Municipalities can also work with their communities to establish zero waste family challenges, where local households are encouraged to reduce their waste generation, often by highlighting the availability of reusable options.

# **CONCLUSIONS**

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This study has illustrated that, when it comes to the waste prevention and waste management of single-use menstrual products, nappies and wet wipes, EU policies are still piecemeal and fail to address some of the biggest barriers both for waste prevention and recycling processes. This has resulted in an EU market flooded with short-lived products that cannot be reused or recycled, and that has great environmental and economic impacts for both consumers and public administrations.

Within the existing EU legal framework, there is no specific regulation addressing the waste management (collection, treatment and final disposal) or the circularity (minimum product design criteria) of single-use menstrual products, nappies and wet wipes, which in Europe account for nearly 8 million tonnes of waste annually. As a consequence, the waste generated by the consumption of these products is - at best - disposed of in the residual waste bin, contaminating the waste and hampering the recycling process. At worst, such products will end up in the environment, or clogging pipes in sewage systems.

With the vast majority of these products ending up in landfills, incinerators or in the environment, it is time for the EU and its Member States to adopt a strategy with a primary focus on prevention and reuse. Such strategy should include economic and legal instruments to create the enabling conditions for effective waste-free circular models to grow. Reusable solutions and systems for single-use menstrual products, nappies and wet wipes already exist, and it is just a matter of providing the right incentives to allow them to become a better alternative to linear single-use models.

While increasing and supporting the reusable market share for menstrual products, nappies and wipes, it is crucial to ensure that their single-use equivalents are collected separately and recycled effectively. Currently, less than 1% of single-use nappies in Europe are separately collected for recycling and whilst this is a process that is currently in operation in the Italian region of Veneto, it will need to be significantly replicated and scaled-up. Such large-scale implementation of post-consumer recycling will require mandatory separate collection of this product category as well as ensuring that the costs of collection and recycling become competitive with incineration and landfill through the application of economic incentives via taxes or EPR.

Action in this field has the potential to prevent more than 5 million tonnes of waste and reduce costs for European municipalities and citizens, while providing an incentive for producers of today to move away from single-use items and towards circularity.

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# **ANNEX**

# Existing quality certifications for reusable menstrual products, nappies and wipes in Europe and beyond

Environmental certifications are not considered rules that impose obligations ('hard law') but, rather, behaviour rules or recommendations that encourage application of the principles of prevention or precaution.

Companies can take the initiative to create standards to improve the environmental quality of their products and to communicate those efforts to customers through a label that certifies their authenticity.

Even if society does not have environmental regulations that create obligations, the voluntary efforts of companies offer consumers the option to choose products with less impact and thus to contribute to waste prevention.

## Identification of reusable products

The certifications analysed in this study could cover the following reusable products:

- Menstrual cups.
- · Period underwear.
- Washable cloth pads.
- Reusable nappies.

## Menstrual cup

A reusable menstrual cup is a flexible cup designed for use inside the vagina during a period to collect menstrual blood. The cup collects rather than absorbs the menstrual flow, unlike tampons or pads. It has a bell-shaped design, with a stem that is used for insertion and removal. The cup can be easily emptied, rinsed and reused as many times as necessary. Manufacturers' information suggests that reusable menstrual cups can last up to 10 years.8

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Menstrual cups are most commonly made from:

- Surgical silicone: medical-grade silicone that is hypoallergenic, does not contain latex or toxins, is not porous and is resistant to bacterial growth.
- Latex: a natural material that is very elastic and resistant. It is not permeable, and is bactericidal and hygienic. It can cause allergic reactions.
- Thermoplastic elastomer (TPE): recyclable material used in baby bottle teats, dummies or medical catheters. It is - typically - hypoallergenic.

Two potential certifications have been identified for reusable menstrual cups:

Logo	Certificate	Content
So Junes SGS	ISO 13485  General Society of Surveillance of Switzerland (Société Générale de Surveillance de Suisse -SGS)	The international standard for Quality Management Systems (QMS) for healthcare products.  Certifies that the device's manufacturing material is inert and completely suitable for medical use: it may have contact with membranes and may even be used in surgical procedures.
U.S Food and Drug Administration	U.S Food and Drug Administration (FDA)	This organisation examines and approves the commercialisation of medical devices. It certifies that materials are designed to be used safely within the human body for long periods of time.

**Table 2:** Certification for menstrual cups.

# Period underwear and washable cloth pads

Period underwear is usually made from a combination of fabrics, typically layers of cotton and waterproof material. The area in direct contact with the vulva tends to be made from cotton. Underneath is a layer of technical tissue, which is absorbent, waterproof, antibacterial and breathable. The external layer works as a barrier to possible leaks and can be made of elastane or nylon. These are washable and reusable and can last up to three years.

Washable cloth pads are worn in the underwear to prevent menstrual fluid from leaking onto clothes. They are used in the same way as single-use pads but can be washed, dried and reused. Generally, they are made from layers of absorbent fabric (such as cotton or hemp) that absorb the flow of blood from the vagina, or to protect the underwear from regular discharge of vaginal fluids. Cloth pads tend to 'breathe' better than single-use items because they are not made of plastic (although some cloth pads have a waterproof breathable lining). These cloth pads can last between one and five years.

For these products, a potential certification for textiles has been identified

Logo	Certificate	Content
CONFIDENCE IN TEXTILES Tested for harmful substances according to Oeko-Tex® Standard 100	Oeko-Tex <sup>®</sup>	European ecological label that verifies that there are no substances in the textile or used during manufacturing that could be harmful to human health.

Table 3: Certification for cloth sanitary towels.<sup>39</sup>

## Reusable nappies

There are several types of reusable baby nappies. Generally, cotton, hemp (or a mixture of both) and microfibres form the absorbent part, while plastic and cloth are used for the protective layer. These nappies are washed and reused many times and considerably reduce waste generation. The only waste is the excretions of the babies, which can be flushed into the sewerage system. Some use a cloth or liner between the skin and nappy for easy disposal of faecal matter.

The same textiles certification mentioned above (Oeko-Tex) would be similarly suitable for reusable nappies.

Logo	Certificate	Content
CONFIDENCE IN TEXTILES  Tested for harmful substances according to Oeko-Tex® Standard 100	Oeko-Tex <sup>®</sup>	European ecological label that verifies that there are no substances in the textile or used during manufacturing that could be harmful to human health.

**Table 4:** Certification for reusable nappies.<sup>39</sup>



Fundació prevenció residus i consum

Rezero – Waste Prevention and Responsible Consumption Foundation is a Catalan non-profit and independent organisation. Working to change the current production and consumption model towards a Zero Waste Strategy, by networking with social, political and economic agents. We promote responsible consumption and waste prevention actions through the development of transformative strategic campaigns, plans and policies and research studies.



Zero Waste Europe is the European network of communities, local leaders, businesses, experts, and change agents working towards the elimination of waste in our society. We empower communities to redesign their relationship with resources, and to adopt smarter lifestyles and sustainable consumption patterns in line with a circular economy.





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