# Prohibition of the sale and supply of single-use vapes

# Partial Business and Regulatory Impact Assessment



# Title of Proposal

Prohibition of the sale and supply of single-use vapes.

# **Purpose and Intended Effect**

- 1. Vapes (also known as e-cigarettes) have increased in popularity in recent years, becoming more mainstream products.<sup>1</sup> In Scotland, the proportion of adults using nicotine vapour products (vapes) increased from 7% in 2019 to 10% in 2022.<sup>2</sup> This is also confirmed by data collected for the Smoking Toolkit Study which shows the proportion of adults making use of nicotine products increased from 7.3% in October 2020 vs 9.5% in October 2023.<sup>3</sup> Specifically, the proportion of adults using single-use vapes has increased, growing from 0.1 % to 4.9 % between January 2021 to August 2023 across the UK. <sup>4</sup>
- 2. Vapes can be a helpful tool to support smokers to guit, though research into the safety and effectiveness of e-cigarettes is still relatively new<sup>5</sup>. They are considered less harmful than smoking when smokers completely switch to vaping products. As they usually still contain nicotine they are not risk-free, and the long-term health impacts of vaping are unknown<sup>6</sup>. A 2024 Scottish Government briefing also concluded that vaping can cause health harms in non-smokers to which they would not otherwise have been exposed to<sup>7</sup>. More research is required on dual use of both cigarettes and vapes. Data suggest this might pose the same of higher health risks than smoking cigarette alone.<sup>8</sup>
- 3. An annual survey undertaken in 2023 by Action on Smoking and Health (ASH), looking at the smoking status and vaping behaviour amongst vapes users in Great Britain.<sup>9</sup> Findings from this research show that 56% of vape users are exsmokers, 37% are current smokers and a smaller proportion are people who have never smoked. It also found that around two thirds of vape users' most popular main device was a reusable vape, with 31% mainly using a single-use vape.10

 <sup>2</sup> The Scottish Health Survey 2022 – volume 1: main report. Scottish Government, 2023
<sup>3</sup> Trends in electronic cigarette use in Scotland. Smoking in Scotland portal. Updated 18 January 2024.

<sup>&</sup>lt;sup>1</sup> Use of e-cigarettes among adults in Great Britain. ASH, 2023

<sup>&</sup>lt;sup>4</sup> Who would be affected by a ban on disposable vapes? A population study in Great Britain. Sarah E. Jackson, Harry Tattan-Birch, Lion Shahab, Melissa Oldham, Dimitra Kale, Leonie Brose, Jamie Brown <u>2024</u>

<sup>&</sup>lt;sup>5</sup> Vaping – Effectiveness as a cessation tool: evidence briefing. Scottish Government, 2024

<sup>&</sup>lt;sup>6</sup> Vaping – Health harms: evidence briefing. Scottish Government, 2024

<sup>&</sup>lt;sup>7</sup> ibid

<sup>&</sup>lt;sup>8</sup> ibid

<sup>&</sup>lt;sup>9</sup> Use of e-cigarette (vapes) among adults in Great Britain. ASH, 2023

<sup>&</sup>lt;sup>10</sup> 50% of users mainly used an 'electronic cigarette that is rechargeable and has a tank or reservoir that you fill with liquids' and 17% of users mainly used an 'electronic cigarette kit that is rechargeable with replaceable pre-filled cartridges'.

- 4. Single-use-vapes are defined as products that are not rechargeable (they use a battery which cannot be recharged, or a coil which cannot be replaced, including a coil contained in a single-use cartridge which is not separately available), or are not refillable (once empty, the cartridge or pod cannot be refilled or replaced),<sup>11</sup> or are not rechargeable and not refillable. In contrast, a reusable vape can both be recharged and fully refilled an unlimited number of times by the user, and will last for a longer period of time.
- 5. Single-use vapes tend to dominate the casual and beginner entry points of the market. Generalist retailers, including convenience stores, primarily sell single-use products whilst specialist vape stores tend to sell more reusable vapes and refill products.<sup>12</sup> Single-use vapes account for around 50% of the UK vape market. It has been estimated that 60% turnover by the vapes industry is generated from single-use vapes, in comparison to 40% from reusable vapes, refill cartridges and e-liquid.
- 6. There has been an increase in popularity in single-use vapes in recent years, especially among young people. The proportion of adults using single-use vapes increased from 0.1 % to 4.9 % between January 2021 to August 2023 across the UK. Last year (2022) a survey by ASH<sup>13</sup> showed that for the first time the most popular type of e-cigarette amongst GB youth was disposable (single use) e-cigarettes, with their use growing more than a 7-fold between 2020 and 2022 from 7.7% to 52%. Growth has continued since last year and 69% of children this year said this was the device they used most frequently.
- 7. Vapes should not be used by children, young people or non-smokers. They carry an unknown long-term risk of future harm and can be very addictive<sup>14</sup>. It is also an offence to sell vapes to anyone under the age of 18 in the UK. Despite the sale of vapes to those under the age of 18 being illegal, the recent Health Behaviour in School-Aged Children (Scotland) study<sup>15</sup> reports that 3% of 11-year-olds, 10% of 13-year-olds and 25% of 15-year-olds said they had used a vape in the past 30 days. Purchasing from shops is the most common source<sup>16</sup>. The report also found that there have been increases in current vape use since 2018 for 13-year-old girls (2% to 13%) and larger increases for 15-year-olds (girls 6% to 30% and boys 8% to 20%).<sup>17</sup> They have also increased in

<sup>&</sup>lt;sup>11</sup> Vapes that are rechargeable and not refillable or that are refillable and not rechargeable, are still considered disposable or 'single-use' even though the lifetime of the vape can be extended through refilling or recharging it.

<sup>&</sup>lt;sup>12</sup> Analysis of the Market for Vapes, Eunomia 2023

<sup>&</sup>lt;sup>13</sup> <u>Use of e-cigarettes among young people in Great Britain.</u> ASH, 2023,

<sup>&</sup>lt;sup>14</sup> Vaping addiction soon takes hold. NHS Inform campaign, access online 15 March 2024

<sup>&</sup>lt;sup>15</sup> Health Behaviour In School-Aged Children Scotland Study, University Of Glasgow MRC/CSO Social And Public Health Sciences Unit, 2022

<sup>&</sup>lt;sup>16</sup> Use of e-cigarettes among young people in Great Britain. ASH, 2023

<sup>&</sup>lt;sup>17</sup> Tobacco and Vaping Framework, Scottish Government, 2023

prevalence amongst young people<sup>18</sup> and people who haven't traditionally smoked cigarettes<sup>19</sup>.

- 8. The rise in the use of single-use vapes has led to their increase in the waste stream. There has been growing concern over their environmental impact as they are typically littered or discarded as general waste in a bin rather than recycled. In 2023, it was estimated that almost 5 million single-use vapes were either littered or thrown away in general waste every week in the UK, almost four times as many as in the previous year.<sup>20</sup>
- 9. Single-use vapes which are thrown in a bin with general waste will either be landfilled or incinerated, and they also pose a fire risk for waste collection vehicles and waste transfer sites due to their lithium-ion batteries. Compaction during the collection process increases the chances of puncture and combustion, setting fire to dry and flammable waste or household recycling around them. This endangers the public and collection crews, as well as damaging public and private property. It is estimated that lithium-ion batteries are responsible for approximately 48% (over 200) of all waste fires occurring in the UK each year.<sup>21</sup>
- 10. When single-use vapes are littered, they introduce plastic, nicotine salts, heavy metals, lead, mercury, and flammable lithium-ion batteries into the natural environment.<sup>22</sup> The chemicals can end up contaminating waterways and soil and can also be toxic and damaging to wildlife. When single-use vapes which have a plastic casing are littered, the plastic can grind down into harmful microplastics. Single-use vapes are primarily littered in public spaces and this generates clean-up costs to local authorities.<sup>23</sup>
- 11. Vapes, like other electricals, should not be placed in a general waste bin or littered, and should instead be returned to participating stores or to household waste and recycling centres (HWRCs). Current estimates indicate that across the UK only 17% of vape users correctly dispose of their single-use vapes<sup>24</sup> In Scotland an estimated 12.8% of single-use vapes are taken back to participating stores, and 8.3% to household waste recycling centres<sup>25</sup>

<sup>&</sup>lt;sup>18</sup> Use of e-cigarettes among young people in Great Britain, ASH, 2023

<sup>&</sup>lt;sup>19</sup> Use of e-cigarette (vapes) among adults in Great Britain. ASH, 2023

<sup>&</sup>lt;sup>20</sup> Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Material Focus media release, 2023

<sup>&</sup>lt;sup>21</sup> Over 700 fires in bin lorries and recycling centres are caused by batteries many of which are hidden inside electricals. Material Focus, 2022,

<sup>&</sup>lt;sup>22</sup> Youth vaping: call for evidence. Office for Health Improvement & Disparities, 2023,

<sup>&</sup>lt;sup>23</sup> Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single-use e-cigarettes Hogg, D., 2023,

<sup>&</sup>lt;sup>24</sup>, Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Material Focus, 2023

<sup>&</sup>lt;sup>25</sup> <u>Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single-use e-cigarettes.</u> Hogg, D., 2023,)

- 12. Single-use vapes are difficult and expensive to recycle.<sup>26</sup> The only recycling process available in the UK is manual dismantling which is costly and time consuming as most single-use vapes are not designed to be taken apart easily.<sup>27</sup> They are designed as one unit and require specific tools to remove the lithium-ion battery for recycling and careful handling of components to avoid operator exposure to the remaining e-liquid. Of the single-use vapes that are returned to a shop or recycling centre across the UK, it is estimated that only 1% are recycled due to limited recycling capacity.<sup>28</sup> The remainder of vapes collected for recycling are likely to be sent to landfill given the Environment Agency's guidance (applicable across the UK) that single-use vapes should not be incinerated.<sup>29</sup>
- 13. Environmental impacts from manufacturing single-use vapes are also a concern. A typical single-use vape contains plastic, copper, cobalt, and a lithium battery. Lithium and cobalt are critical raw materials as noted in the UK's Critical Raw Materials Strategy<sup>30</sup> which is essential to the production of electronic devices, batteries, and energy generation.<sup>31</sup> The increased demand for single-use vapes leads to an increased demand for these critical raw materials. It is estimated that the total amount of single-use vapes purchased every year contain enough lithium to provide batteries for 5,000 electric vehicles.<sup>32</sup> This is a waste of valuable resources in a product with a short lifespan, that is poorly recycled, and has a reuseable alternative readily available. As well as a loss of resources, there are environmental impacts through raw material extraction, single-use vape production, and manufacturing. Most notably, this includes greenhouse gas emissions and water consumption generated in their manufacture.<sup>33</sup>

# Wider policy context

14. The Scottish Government is committed to moving towards a circular economy, where we move from a "take, make and dispose" model to one where we value materials and keep them in use. Reusable vapes are a readily available alternative to single-use vapes and have a much longer lifespan. They are made from more durable materials and are built to last longer. Although they are initially more expensive<sup>34</sup>, reusable vapes are

<sup>&</sup>lt;sup>26</sup> Dismantling a growing problem. Valpak, 2023,

<sup>&</sup>lt;sup>27</sup> Disposable vapes – a challenge to the recycling sector, IEMA, 2022,

<sup>&</sup>lt;sup>28</sup> Analysis of the Market for Vapes, Eunomia, 2023

<sup>&</sup>lt;sup>29</sup> Agency sets out vapes recycling stance, WastePack, 2023

<sup>&</sup>lt;sup>30</sup> Resilience for the Future: The UK's Critical Raw Materials Strategy

<sup>&</sup>lt;sup>31</sup> The Role of Critical Minerals in Clean Energy Transitions, World Energy Outlook. International Energy Agency, 2021,

<sup>&</sup>lt;sup>32</sup> Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Material Focus, 2023

<sup>&</sup>lt;sup>33</sup> Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single-use e-cigarettes. Hogg, D., 2023.

<sup>&</sup>lt;sup>34</sup> Creating a smokefree generation and tackling youth vaping: your views - GOV.UK (www.gov.uk)

more cost-effective in the long term. Reusable vapes are considered to be less environmentally damaging, as the same vape can be used for an extended period of time compared to single-use vapes.

- 15. The Department of Health and Social Care published a call for evidence on youth vaping in April 2023<sup>35</sup> where the impact of vapes on the environment was a key theme of interest. A summary of responses to this call for evidence was published in October 2023, highlighting many of the key issues in relation to the damaging impact on the environment caused by single-use vapes.<sup>36</sup> In January 2023, the Scottish Government commissioned Zero Waste Scotland to examine the environmental impact of single-use vapes. The research report, published in June 2023, highlighted environmental concerns including the increase of e-cigarette littering, waste of resources and the fire risk from batteries contained in devices, and identified possible policy options to address them.<sup>37</sup>
- 16. There are measures already in place to ensure responsible production and disposal of vapes. The Waste Electrical and Electronic Equipment (WEEE) Regulations 2013<sup>38</sup> aim to encourage the reuse and recycling of these items by placing financial responsibilities on producers and distributors of electrical and electronic equipment (EEE) to pay for the collection and disposal schemes for end-of-life products. This means that all producers who place EEE on the UK market, including producers of single-use vapes, are responsible for financing the costs of the collection, treatment, recovery, and environmentally sound disposal of WEEE.
- 17. Compliance with the current WEEE regulations by vape producers is estimated to be low. This includes low levels of awareness amongst store owners and distributors for takeback schemes, as well as low levels of customer participation reported.<sup>39</sup>
- 18. Plans to reform the producer responsibility system for waste electrical and electronic equipment<sup>40</sup> have recently been consulted on. Proposals under review include the provision of collection infrastructure for household WEEE financed by producers of electrical and electronic equipment; reforms to the take-back obligations that currently apply to distributors; obligations on online marketplaces; and creating a new separate categorisation for vapes to ensure producers of vapes properly finance recycling costs when they become waste. The reported low awareness of

<sup>&</sup>lt;sup>35</sup> Youth vaping: call for evidence. Office for Health Improvement & Disparities, 2023,

<sup>&</sup>lt;sup>36</sup> Summary of responses and government response. Department for Environment, Food, & Rural Affairs, 2023,

<sup>&</sup>lt;sup>37</sup> Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single-use e-cigarettes. Hogg, D., 2023

<sup>&</sup>lt;sup>38</sup> The Waste Electrical and Electronic Equipment Regulations 2013. UK Government, 2013,

<sup>&</sup>lt;sup>39</sup> Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Material Focus, 2023,

<sup>&</sup>lt;sup>40</sup> Consultation on reforming the producer responsibility system for waste electrical and electronic equipment 2023. Department for Environment, Food, & Rural Affairs, 2023,

producer obligations ought to be addressed by the implementation of these producer responsibility reforms.

19. To address the range of environmental issues associated with single-use vapes, the Scottish Government has agreed with the UK Government (legislating for England) and the Welsh Government, to prohibit the sale and supply of such items (hereafter referred to as ban on single-use vapes). Northern Ireland officials acknowledge the issues raised during the consultation and will consider potential legislation in future. Reusable vapes will be unaffected by this change.

#### Vaping market and Scottish manufacturing

- 20. The Scottish single-use vaping industry is estimated to have generated a turnover of £156 million in 2023<sup>41</sup>. The majority of turnover is related to the import and retail sale of devices, rather than their manufacture. For example, one of the largest vape chains in the UK now has more than 150 stores nationwide and recent reports indicate that its annual turnover has increased by almost 60% over the past five years<sup>42</sup>.
- 21. The vast majority of single-use vapes are manufactured in China, with estimates of over 80% of the entire market between 5 to 6 major producers<sup>43</sup>. While a small amount of manufacturing may occur in the UK, there is no evidence to suggest that single-use vapes are manufactured in Scotland<sup>44</sup>. In any case, the market share would be negligible. While little direct evidence exists, it is likely that any Scottish market connected to manufacturing in the vaping industry is connected to refillable products. Further research is needed to identify the exact nature and scale of these markets. This is most likely to be in the production and sale of liquids used.
- 22. The Scottish Parliament passed the Tobacco and Primary Medical Services (Scotland) Act 2010 in January 2010<sup>45</sup>. The Act, among other things, introduced a tobacco sales registration scheme for tobacco retailers trading in Scotland, which became effective from 2011<sup>46</sup>. The Health (Tobacco, Nicotine etc. and Care) (Scotland) Act 2016 amended the 2010 Act to extend the requirement for registration to Nicotine Vapour Product Businesses. In 2017 retailers who sell nicotine vapour products (either solely or in conjunction with tobacco products) were also required to register; prior to this point registration was voluntary. Using this data, it is possible to observe the trend of new registrations from 2011 to February 2024.

<sup>&</sup>lt;sup>41</sup> <u>Disposable Vapes Impact Assessment.</u> Defra, 2024 (

<sup>&</sup>lt;sup>42</sup> Vaping is big business in Britain. The Economist, 2023

<sup>&</sup>lt;sup>43</sup> Analysis of the market for vapes: exploring the environmental impacts of single-use vapes. Eunomia, 2023.

<sup>&</sup>lt;sup>44</sup> Assumptions from Defra single-use vapes impact assessment. As little to no manufacturing has been seen in the UK, there is an even smaller likelihood that manufacturing is taking place in Scotland.

<sup>&</sup>lt;sup>45</sup> Tobacco and Primary Medical Services (Scotland) Act 2010 Scottish Government, 2010

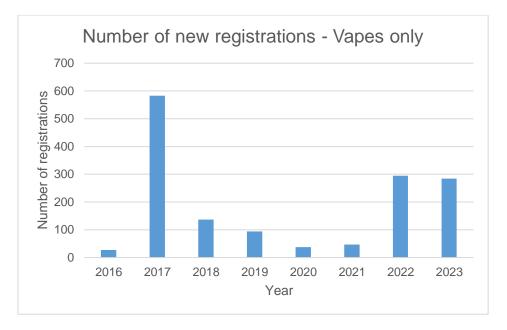
<sup>&</sup>lt;sup>46</sup> Register of tobacco and nicotine vapour product retailers. Scottish Government.

- 23. The figures for vapes and tobacco sellers are not inclusive of businesses selling vapes only, these are two distinct data sets. A limitation of using this data is that despite a legislative requirement<sup>47</sup> to deregister within three months of ceasing to trade or stopping selling vapes or tobacco products, not all businesses will do so, particularly if the business closes permanently or changes ownership. The numbers therefore are likely an overestimate of businesses in Scotland which are selling vapes. To compensate, the numbers have been adjusted downwards by the respective annual rate of business closures (officially referred to as the "death rate"<sup>48</sup>) for the retail sector in the UK.
- 24. This respective rate has been applied for each year since vape sellers have been mandated to register. This means those businesses which are already on the register and newly registered for that year are subjected to the annual rate at which all businesses close. As this rate reflects the rate at which all businesses (existing and new) close in a given year, it should help to adjust the cumulative number of businesses on the register each year closer to reality.
- 25. In total, there have been 7,567 total Scottish registrations since 2011<sup>49</sup>. 5,826 of these are businesses registered to sell both vapes and tobacco products, and 1,741 of these registered to sell vapes but not tobacco products<sup>50</sup>. Adjusted for annual rate of business closure rates, the total number falls to 6,598, with 5,080 being tobacco and vapes, and 1,518 being vapes only. Figures 1, 2 and 3 below show the numbers of new registrations for vapes only, vapes and tobacco, and the cumulative number of registrations over time for these two categories and a combined measure, respectively. As vapes sellers were not mandated to be on the register until 2017, trend data has been taken from 2016 onwards to demonstrate the impact of this policy more clearly. Note that the impact of Covid-19 in 2020 and 2021 may have reduced the number of registrations in those years.

<sup>&</sup>lt;sup>47</sup> Tobacco and Primary Medical Services (Scotland) Act 2010 (legislation.gov.uk)

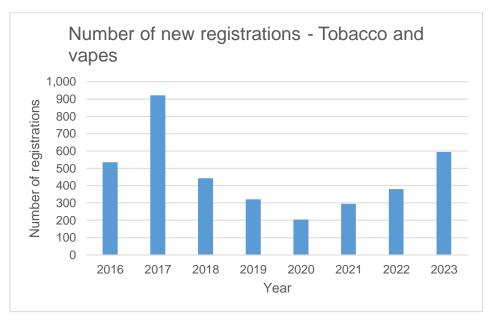
<sup>&</sup>lt;sup>48</sup> Business births, deaths and survival rates. Office for National Statistics, live search 19 March 2024 49 Ibid

<sup>50</sup> Ibid



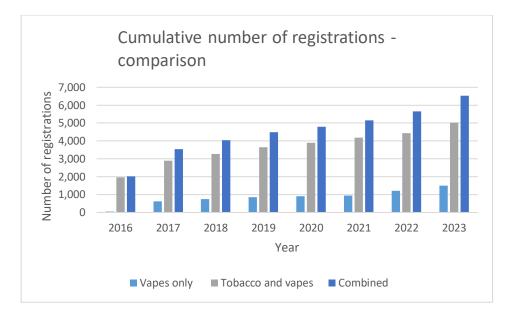
\* Adjusted by ONS annual business death rates





\* Adjusted by ONS annual business death rates

Figure 2: Scottish Government data (2024)



\* Adjusted by ONS annual business death rates

Figure 3: Scottish Government data (2024)

- 26. It is clear from the data in Figures 2 and 3 above that there has been a significant increase in the number of new registrations in the years 2022 and 2023 for those businesses selling vapes only. This trend is partly mirrored in the data for businesses selling tobacco and vapes, although with a much smoother upward trend beginning from 2020.
- 27. Looking at the cumulative number of registrations between the two data sets, and a combined measure, there is a similar trend of new registrations for all three measures. For many years now the tobacco and vape industries have been moving inversely to each other, with tobacco declining and vaping increasing<sup>51</sup>. Based on this trend, it can be reasonably assumed that the growth in new registrations overall is primarily driven by the growth in those selling vapes, regardless of their registration as a tobacco and vapes retailers or vapes retailer. In addition, given the significant uptake in single-use vape use in particular over recent years, it would again be reasonable to assume that the growth in registrations, particularly for premises only selling vapes, is being driven by the surge in popularity of single-use vapes.
- 28. The 2023 UK-wide consultation<sup>52</sup> suggests that currently, cigarettes are estimated to be on average around three times more expensive than vaping due to application of both VAT and cigarette tax. It also suggests there is a relatively wide range of costs for vapes, with single-use vapes being cheaper as a one-off purchase while reusable vapes are initially more expensive. These price differentials will however be subject to change from October 2026 when a new Vaping Products Duty is introduced by UK government. A public consultation<sup>53</sup> is underway on this new duty and will close on 29<sup>th</sup> May 2024. It sets out the

<sup>&</sup>lt;sup>51</sup> Vaping is big business in Britain. The Economist, 2023

<sup>&</sup>lt;sup>52</sup> Creating a smokefree generation and tackling youth vaping: your views - UK Gov - 2024

<sup>&</sup>lt;sup>53</sup> Vaping Products Duty consultation. HM Treasury, 2024

proposals for how the duty will be designed and implemented and will be accompanied by a one-off increase in tobacco duties.

29. Costs used in the consultation ranged from an average of £6 for single-use vapes to £40 for reusable versions. Reusable vapes are more expensive initially with a higher upfront purchase cost. This differs according to the type of reusable vapes, with pre-filled pods kits on average costing an average of £12 with the more complex refillable cartridge vapes an average of £40. Single-use vapes as a one-time purchase average around £6, making them the cheaper option in the short term.

#### Objective

30. The policy objectives of the intervention are to:

- Accelerate a reduction in environmental harm by reducing the number of vapes being landfilled, incinerated, and littered, and increasing recycling and reuse rates by requiring consumers to move to reusable alternatives;
- Stimulate businesses and consumers to replace their single-use vapes with reusable alternatives, thereby supporting a switch to less environmentally harmful products.
- 31. Banning the sale and supply of single-use vapes will contribute to objectives set out in the Climate Change (Scotland) Act 2009<sup>54</sup>, and the Climate Change Plan, Third Report on Proposals and Policies (RPP)<sup>55</sup>. The Climate Change Plan: Third RPP 2018-2032 was published in February 2018 and sets out plans to achieve decarbonisation of the economy in the period to 2032, making progress towards the target of net zero by 2045.
- 32. In 2015, the Scottish Government signed up to support the United Nations Sustainable Development Goals<sup>56</sup>. The ambition behind the goals is to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. A ban on the sale and supply of single-use vapes will have a positive impact on a number of these goals, most explicitly Goals 12, 13, 14 and 15:
  - Responsible Consumption and Production,
  - Climate Action,
  - Life Below Water,
  - Life on Land.
- 33. Furthermore, the policy will contribute towards goals outlined in Scotland's National Strategy for Economic Transformation (NSET)<sup>57</sup>. Specifically, the vision

<sup>&</sup>lt;sup>54</sup> Climate Change (Scotland) Act 2009

<sup>&</sup>lt;sup>55</sup> Climate Change Plan: The Third Report on Proposals and Policies 2018-2032. Scottish Government, 2018

<sup>&</sup>lt;sup>56</sup> UN Sustainable Development Goals. United Nations website, live search

<sup>&</sup>lt;sup>57</sup> Scotland's National Strategy for Economic Transformation. Scottish Government, 2022

to create a wellbeing economy which is thriving across economic, social, and environmental dimensions. Reducing material consumption, particularly with problematic single-use items, will help to keep our economy with environmental limits, and climate and nature targets.

- 34. The proposed ban on the sale and supply of single-use vapes aligns with the latest Programme for Government 2023 to 2024<sup>58</sup> where the commitment is made to "Take action to reduce vaping among nonsmokers and young people and to tackle the environmental impact of single-use vapes, including consulting on a proposal to ban their sale and other appropriate measures." Also, the National Mission to build a fair, green, and growing economy, and two out of five of the key priorities outlined by the First Minister:
  - "Ensure that Scotland leads the way in tackling the climate emergency in how we heat our homes, travel day-to-day, and use our land".
  - "Reverse decades of damage to the natural world on land and sea by helping nature fight back".

#### Existing regulatory landscape

- 35. Producer responsibility for vapes falls under the Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 (the "WEEE Regulations"). The majority of the WEEE Regulations came into force across the UK on 1 January 2014, implementing Directive 2012/19/EU on WEEE,<sup>59</sup> and providing for a wider range of EEE products to be covered by the WEEE Regulations with effect from 1<sup>st</sup> January 2019. There are fourteen broad categories of WEEE outlined within the WEEE Regulations<sup>60</sup>. Vapes currently fall under category 7 toys, leisure, and sports equipment. A key principle in managing WEEE is the "polluter pays" principle, which underpins many environmental measures.
- 36. The current system of WEEE Producer Responsibility (PR) is based on 'collective producer responsibility'. Unlike in an individual producer responsibility scheme, producers do not have to individually finance the collection and reprocessing of exclusively their own equipment. Rather, the entire market's WEEE is collected, reprocessed, and collectively paid for based on the fraction of each producer's market share, by weight, of each category of WEEE. As vapes fall under a broad category, it is highly likely that all producers within that category (whether vapes or otherwise) share in the cost of recycling vapes.
- 37. However, the costs of recycling vapes are significantly higher than other category 7 products, with estimates of the cost of recycling a single vape to be £0.4-£1.0, and with costs by weight to be £5-£10 per kilogram.<sup>61</sup> This

<sup>&</sup>lt;sup>58</sup> Programme for Government 2023 to 2024, Scottish Government, 2023

<sup>&</sup>lt;sup>59</sup> Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (recast).

<sup>&</sup>lt;sup>60</sup> Waste Electrical and Electronic Equipment recycling (WEEE). Health & Safety Executive

<sup>&</sup>lt;sup>61</sup> Analysis of the market for vapes: exploring the environmental impacts of single-use vapes.

categorisation means that it is likely that vapes producers will not cover the full cost of vapes collected for recycling, reducing the incentive for them to ensure that their products are easily recyclable.

- 38. For example, research commissioned by Zero Waste Scotland<sup>62</sup> found that WEEE recycling organisations were facing costs of recycling single-use vapes in the order of £0.50 per item (some organisations have been quoted £1 per item). Empty single-use vapes weigh of the order 30g, so a cost of the order £0.50 per item equates to over £15,000 per tonne.
- 39. Where vapes are collected for recycling by producer compliance schemes (for example where households return vapes to their local HWRC), there is significant risk that the other category 7 producers will share the significantly higher cost of treating these vapes. This unfairly increases the compliance costs to these producers. The challenge for producer compliance schemes to fairly apportion costs of collection and treatment of vapes acts as a disincentive for them to sign up vape producers. The current inclusion of vapes within category 7 means that producer compliance schemes and producers also do not currently need to ensure that vapes are collected to meet their recycling targets, as targets can be met through financing the collection of other category 7 items. The current categorisation therefore means that it is unlikely that vapes producers are covering the full cost of vapes collected for recycling, which reduces the incentive for them to ensure that their products are easily recyclable.
- 40. At the point that the WEEE Regulations were implemented, vape usage was low, and these products only made up a small proportion of category 7. However, there has been as significant increase in the use of vapes in Scotland, as evidenced above. Additionally, compliance with the WEEE Regulations by vape producers is estimated to be low, particularly among producers and convenience stores. Retailers that sell vapes in any quantity are obliged to offer take-back services for recycling (i.e. they must provide a vape disposal bin in store). There are low levels of awareness amongst store owners and distributors for takeback schemes, as well as low levels of customer participation reported.
- 41. The WEEE Regulations as they relate to the management of single-use vape waste are being reviewed. One of the proposed changes is to make a distinct category for vapes. The aim is to ensure that it is vape producers who pay the cost of managing single-use vaping waste, the cost of which is currently and disproportionately falling on local authorities and other category 7 producers. Creating this sole but collective responsibility amongst vape producers may incentivise them to enhance the recyclability of their products through ecodesign or reduce their demand through cost pass-through to the consumers from the increase in waste end-of-life management costs.

Eunomia, 2023.

<sup>&</sup>lt;sup>62</sup> Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single-use e-cigarettes Hogg, D. 2023,

- 42. Extended Producer Responsibility Regulations for WEEE have recently been consulted upon, which includes the costs of collection, transport, treatment, and disposal of WEEE.
- 43. A new Vaping Products Duty will be introduced by the UK government in October 2026. A public consultation<sup>63</sup> is underway on this new duty and will close on 29 May 2024. It sets out the proposals for how the duty will be designed and implemented and will be accompanied by a one-off increase in tobacco duties.
- 44. The planned ban on the sale and supply of single-use vapes forms part of a suite of measures being taken forward by the Scottish Government to reduce our reliance on single-use items. This includes the implementation of the Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021 in June 2022 and we will shortly publish a consultation on the introduction of a charge for single use disposable beverage cups to encourage behaviour change towards re-use. This builds on the success of the single-use carrier bag charge.
- 45. The Scottish Government is working with other nations in the UK on the expansion of the UK Emissions Trading Scheme (ETS) to include incineration and energy from waste. The UK ETS Authority held a joint consultation<sup>64</sup> in 2022. A joint UK response<sup>65</sup> set out that inclusion of incineration and energy from waste in the UK ETS could facilitate reductions in emissions and increased efficiency of these processes by, for example, incentivising increases in recycling and investments in mixed waste sorting, heat networks and carbon capture and storage. The response noted an intention to include incineration and energy from waste in the UK ETS from 2028, but noted further work was needed on several areas ahead of a further consultation. There is a risk that Persistent Organic Pollutants (POPs) above threshold limits, may be identified in single-use vapes (and reusable vapes at the end of their usable lives), which means they would need to be managed in line with relevant regulations and managed in a way that destroys the POP content. Currently, the main option available to destroy the POP content is energy from waste, which could be affected by the proposed inclusion of energy from waste in the UK ETS scheme from 2028. Waste managers dealing with end-of-life vapes will therefore be affected by the potential inclusion of energy from waste in the UK ETS scheme.

#### **Rationale for Government intervention**

46. It is expected that the implementation of a ban on single-use vapes will:

- Reduce the volume of waste created.
- Reduce the numbers of single-use vapes entering terrestrial and marine ecosystems through littering.

<sup>63</sup> Vaping product duty consultation - UK Gov - 2024

<sup>&</sup>lt;sup>64</sup> Developing the UK Emissions Trading Scheme (UK ETS). UK Government, 2022

<sup>&</sup>lt;sup>65</sup> Developing the UK Emissions Trading Scheme: Main Response. UK Government, the Scottish Government, the Welsh Government and the Department of Agriculture, Environment and Rural Affairs for Northern Ireland, 2023

- Encourage wider and more sustainable behaviour change around the consumption of single-use items to tackle our throwaway culture.
- Reduce consumption of critical raw materials.
- Encourage a shift towards reusable alternatives.
- 47. While not a direct rationale for the intervention the sharp rise in youth vaping is of growing concern. As already noted, despite the sale of vapes to those under the age of 18 being illegal, the recent Health Behaviour in School-Aged Children (Scotland) study<sup>66</sup> reports that 3% of 11-year-olds, 10% of 13-year-olds and 25% of 15-year-olds said they had used a vape in the past 30 days.

#### Rising consumption in absence of intervention

48. Based on current and projected market trends, it is unlikely that in the absence of intervention, the consumption and subsequent disposal of single-use vapes will fall as a result of market or other forces alone. The numbers of total single-use vape users in 2022 was estimated at around 149,000, which could rise to as much as 361,000 by 2027<sup>67</sup>. Converting this into an implied consumption of single-use vapes could equal as high as 26.6 million to 63.9 million, respectively<sup>68</sup>.

#### Environmental, health, and social externalities

- 48. Due to their nature, when single-use vapes come to end-of-life, they are often disposed of in residual waste or littered, ending up either in landfill or incinerated. This is their main contribution to negative externalities. Externalities associated with extraction or raw materials and production are not included, as the BRIA only considers territorial effects in Scotland. Containing lithium-ion batteries, single-use vapes when improperly disposed of pose a fire risk. This can be in household/commercial household waste bins, inside waste collection vehicles, or in household waste and recycling centres (HWRCs), or many other environments.
- 49. During waste management and recycling processes, vapes can be crushed or punctured, potentially causing them to self-combust<sup>69</sup>, setting fire to combustible materials surrounding them. This poses health and environmental concerns both to waste management and recycling workers, and the public. The prevalence of fires linked to single-use vapes which have been improperly disposed of is likely to be costing councils and waste management businesses heavily. It is estimated that lithium-ion batteries are linked to roughly half of all waste fires in the UK each year<sup>70</sup>.

<sup>&</sup>lt;sup>66</sup> Health Behaviour In School-Aged Children Scotland Study, University Of Glasgow MRC/CSO Social And Public Health Sciences Unit, 2022

<sup>&</sup>lt;sup>67</sup> Zero Waste Scotland (2023) Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single use e-cigarettes

<sup>68</sup> Ibid

<sup>&</sup>lt;sup>69</sup> Single-use vapes sparking surge in fires at UK waste-plants. The Guardian, 2023

<sup>&</sup>lt;sup>70</sup> Over 700 fires in bin lorries and recycling centres are caused by batteries many of which are hidden inside electricals. Material Focus media release, 2022.

- 50. In 2023, it was estimated that almost 5 million single-use vapes were either littered or thrown away in residual waste streams in the UK, almost four times as much as the previous year<sup>71</sup>. When single-use vapes are littered, they introduce plastic, nicotine salts, heavy metals, lead, mercury, and flammable lithium-ion batteries into the natural environment<sup>72</sup>. The chemicals can contaminate waterways and soil and can also be toxic and damaging to wildlife. When single-use vapes with a plastic casing are littered, the plastic can grind down into harmful microplastics. Single-use vapes are primarily littered in public spaces and this generates clean-up costs to local authorities (LAs)<sup>73</sup>.
- 51. Since single-use vapes contain critical raw materials such as lithium, cobalt, and copper<sup>74</sup> their production (and often use and disposal) creates negative environmental externalities. Lithium is particularly critical in the production of a wide range of electronic devices. At the UK level, it is estimated that five million single-use vapes are being thrown away per week, taking a population share for Scotland (8.18% of the UK total)<sup>75</sup>, this amounts to enough lithium to make around 400 electric vehicles per year, based on a UK-wide estimate of 5,000 electric vehicles per year<sup>76</sup>. Other environmental externalities include greenhouse gas (GHG) emissions, energy use, water use, and littering<sup>77</sup>.
- 52. Littering was a key driver in the ban on certain single-use plastic items in Scotland<sup>78</sup> due to their persistent nature causing long-term visual disamenity and ecosystem damage<sup>79</sup>. Single-use vapes are a step change up from other single-use plastic items as they also contain electronics and many other problematic materials and substances which could be hazardous to human and ecosystem health. Due to this, their visual disamenity cost is likely to be much higher where people are aware of the components and the risk of combustion and/or leakage into the environment.
- 53. When single-use vapes are disposed of incorrectly, potentially harmful materials and chemicals enter terrestrial and marine environments. Some materials can persist for hundreds of years causing damage to ecosystems. Chemicals added during the manufacture of plastics can enhance durability, act as a colorant, plasticizer, stabilizer or increase flame retardancy. Some of these chemicals are

<sup>&</sup>lt;sup>71</sup> Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Material Focus, 2023

 <sup>&</sup>lt;sup>72</sup> Youth vaping: call for evidence. Office for Health Improvement & Disparities, UK Government 2023
<sup>73</sup> Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single-use e-cigarettes Hogg, D. 2023,

<sup>&</sup>lt;sup>74</sup> The Role of Critical Minerals in Clean Energy Transitions. IEA, 2021

<sup>&</sup>lt;sup>75</sup> Population estimates for the UK, England, Wales, Scotland and Northern Ireland: mid-2021. Office for National Statistics, 2022

<sup>&</sup>lt;sup>76</sup> Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Material Focus media release, 2023

<sup>&</sup>lt;sup>77</sup> Scoping policy options for Scotland focusing on understanding and managing the environmental impact of single-use e-cigarettes Hogg, D. 2023

<sup>&</sup>lt;sup>78</sup> Single-use Plastic Products (Scotland) Regulations 2021. Zero Waste Scotland Knowledge Hub, 2023

<sup>&</sup>lt;sup>79</sup> Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021: business and regulatory impact assessment – final. Scottish Government, 2021

classified as persistent organic pollutants (POPs) and endocrine disruptor chemicals (EDCs) and will further harm terrestrial and marine life if ingested as microplastics<sup>80</sup>. The electronics and critical raw materials (lithium-ion batteries, copper, cobalt etc.) can also pose their own risk to human and ecosystem health.

- 54. From a socioeconomic perspective, littering of single-use vapes imposes direct societal costs in the form of litter clean up from local authorities and other organisations and indirect costs such as the visual disamenity of litter. Given these costs, the policy aim is to eliminate the consumption of single-use vapes and therefore reduce their negative social and environmental externalities. This can come either from consumers switching to reusable alternatives, or forgoing consumption altogether.
- 55. There may also be positive impacts on mental health and wellbeing if the ban is successful in achieving a reduction in litter. The Scottish Litter Survey<sup>81</sup> found that the effects of litter on local resident's health and wellbeing was among respondents' top three concerns, ranking third after the impact on animals and the environment and negative perceptions of the neighbourhood. Furthermore, the Carnegie Trust found that those who reported the highest incidence of environmental incivilities such as litter were more likely to report anxiety, depression, poor health, smoking, and poor exercise than those with more positive views on this aspect of their local environment<sup>82</sup>. Another study<sup>83</sup> investigated the effect of litter on psychological reactions to marine environments. The study found that photographs of un-littered coasts tended to provide participants with a sense of happiness and less stress while photographs exhibiting littered coasts caused participants to exhibit stress and a lack of the positive psychological benefits that coastal environments normally provide.

#### Information failure

56. There are also information market failures present. Despite single-use vapes being covered by WEEE Regulations, there are low levels of consumer awareness over the environmental and health impacts of incorrect disposal and a lack of knowledge, and willingness, to pursue correct forms of disposal<sup>84</sup>. The opacity and frequent changes, in addition to the diversity of companies involved in the importation and distribution, makes the UK vape market complex to understand. Low barriers to entry allow new and opportunistic companies to import vape products. The innovation and the

<sup>&</sup>lt;sup>80</sup> Marine litter plastics and microplastics and their toxic chemicals components: the need for urgent preventive measures. Gallo, F., Fossi, C., Weber, R. et al. Environmental Sciences Europe, Volume 30 2018

<sup>&</sup>lt;sup>81</sup> Scottish Litter Survey, Keep Scotland Beautiful, 2023

<sup>&</sup>lt;sup>82</sup> Pride in Place: Tackling Incivilities, Carnegie Trust UK, 2012

<sup>&</sup>lt;sup>83</sup> Factors That Can Undermine the Psychological Benefits of Coastal Environments: Exploring the Effect of Tidal State, Presence, and Type of Litter, Wyles et al., 2016

<sup>&</sup>lt;sup>84</sup> Over 700 fires in bin lorries and recycling centres are caused by batteries many of which are hidden inside electricals. Material Focus, 2022.

development of new types of vaping products provides opportunities for new entrants to satisfy demand for novel and innovative products. The market has grown rapidly and is likely to continue developing, with a high number of new entrants bringing products to the UK market and a range of retail channels bringing products to consumers.<sup>85</sup>

#### Lack of compliance

57. This lack of information and complexity has contributed towards a lack of regulatory compliance with products on the market which exceed the legal level of nicotine or circumvent the minimum product safety standards. The highest strength legally allowed in a single-use vape in the UK is 20mg (2%) and 2ml, so 40mg of nicotine in total<sup>86</sup>. Trading Standards have seized single-use vapes entering the UK containing far above this legal limit<sup>87</sup>. This poor compliance extends to retailers and other businesses selling single-use vapes to the public. The most common method for those aged under 18 to buy vapes is from shops<sup>88</sup>. This is illegal and ongoing enforcement will be required.

#### Lack of recycling infrastructure and capacity

- 58. Current estimates indicate that only 17% of vape users in the UK correctly dispose of their single-use vapes<sup>89</sup>. Of the single-use vapes returned to a participating store or HWRC, it is estimated that only 1% are recycled due to limited recycling capacity<sup>90</sup>. When single-use vapes are recycled, the cost of doing so is high per item and by weight. In addition, the costs of recycling vapes are significantly higher than other category 7 products, with estimates of the cost of recycling a single vape to be £0.40-£1, and with costs by weight to be £5-£10 per kilogram<sup>91</sup>.
- 59. Current UK-wide estimates for the cost of collecting and recycling these vapes is £200 million per year<sup>92</sup>. If it is assumed that the consumption of single-use vapes can be divided up reliably by population share, i.e. Scotland at 8.18%, the costs attributed to Scottish LAs, government, organisations, and society for the collection and recycling of vapes would be £16.35 million per year.

#### International examples

<sup>&</sup>lt;sup>85</sup> Analysis of the market for vapes: exploring the environmental impacts of single-use vapes. Eunomia, 2023.

<sup>&</sup>lt;sup>86</sup> E-cigarettes: regulations for consumer products, UK Government. Accessed February 2024.

 <sup>&</sup>lt;sup>87</sup> Vapes 10 times over legal size seized at Kent ports, BBC News. Accessed February 2024.
<sup>88</sup>Use of e-cigarettes among young people in Great Britain. ASH, 2023.

<sup>&</sup>lt;sup>89</sup>, Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Material Focus, 2023

<sup>&</sup>lt;sup>90</sup> <u>Analysis of the market for vapes: exploring the environmental impacts of single-use vapes.</u> Eunomia, 2023.

<sup>91</sup> ibid

<sup>&</sup>lt;sup>92</sup> Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per week. Materials Focus, 2023.

- 60. There is growing international momentum to restrict the sale and supply of single-use vapes. In the European Union, the Battery Regulation requires, from 2027, that portable batteries in most electronic devices (such as e-cigarettes/vapes), must be removable and replaceable by the users themselves<sup>93</sup>. Single-use vapes which do not currently meet these requirements will be prevented from being placed on the market in the EU as of 2027.<sup>94</sup>
- 61. The French government is considering a ban<sup>95</sup> on single-use vapes amid health and environmental concerns, which is likely to come into effect by September 2024. Ireland and Germany are also considering bans on singleuse vapes due to their concerns about environmental impacts and disposal issues.<sup>96</sup> Belgium will become the first EU member state to ban disposable electronic cigarettes from 1 Jan 2026 following the European Commission's recent approval of its legislation<sup>97</sup>.
- 62. The sale of all e-cigarettes with a flavour other than tobacco is banned in Finland, and restrictions apply to advertising and promotion at points of sale. In Norway, sales of e-cigarettes and e-liquids are restricted to instances where the product has been approved by the Directorate of Health. Domestic sale of flavoured vapes is also banned in China, though their manufacture for export is permitted.<sup>98</sup>
- 63. New Zealand introduced a ban on single-use vapes in 2023 requiring manufacturers, importers, distributors, and retailers to only sell single-use vaping products that have a removable battery, a child safety mechanism, follow new nicotine concentration requirements, and comply with new labelling requirements<sup>99</sup>. Further restrictions include limiting vape products and their packaging to only allow generic flavour descriptions and prohibiting new specialist vape shops from opening in the immediate vicinity of schools.
- 64. Australia has also taken action to limit the use of vapes through stronger legislation, enforcement, education, and support. From October 2021, a prescription is required to lawfully access vapes containing nicotine in Australia<sup>100</sup> and imports of single-use vapes were banned from January 2024.
- 65. Other countries, such as Qatar and Singapore, banned the use of vapes in their entirety, whereby the possession or sale of them can result in a penalty

<sup>&</sup>lt;sup>93</sup> Council adopts new regulation on batteries and waste batteries - European Council - 2023

<sup>&</sup>lt;sup>94</sup> Regulation (Eu) 2023/1542 of the European Parliament and of the Council of 12 July 2023 Concerning Batteries and Waste Batteries, Amending Directive 2008/98/Ec, Official Journal of the European Union, 2023

<sup>&</sup>lt;sup>95</sup> France backs ban on disposable vapes - The Royal Environmental Health Institute Scotland - 2024.

<sup>&</sup>lt;sup>96</sup> Disposable vapes FAQs Local Government Association, 2024

 <sup>&</sup>lt;sup>97</sup> <u>Register of Commission Documents - C(2024)1673 (europa.eu)</u>
<sup>98</sup> GB 41700-2022 National Mandatory Standard for Electronic Cigarettes. AGC news release, 2022

 <sup>&</sup>lt;sup>99</sup> Vaping, herbal smoking and smokeless tobacco products regulation. New Zealand Ministry of Health, 2024.

<sup>&</sup>lt;sup>100</sup> About vaping and e-cigarettes. Department of Health and Aged Care, Australian Government, 2023.

fine. More information on international legislation restricting the sale and supply of vapes is provided on the Tobacco Control Laws website<sup>101</sup>.

#### Alignment with health objectives

- 66. In 2013 the Scottish Government launched 'Creating a tobacco-free generation: A Tobacco Control Strategy for Scotland'<sup>102</sup>. It contained the ambitious aim of making Scotland tobacco-free (population smoking prevalence of 5% or less) by 2034 (hereafter referred to as the 2034 target). The 2018 Tobacco Action Plan "Raising Scotland's tobacco-free generation: our tobacco control action plan 2018" <sup>103</sup> was launched by the Scottish Government in June 2018 superseding but building on the 2013 Strategy. This five-year action plan set out further interventions and policies to help reduce the harms from tobacco in Scotland.
- 67. In 2022, work began to develop a new action plan 'Tobacco and Vaping Framework: Roadmap to 2034' (published in 2023), which sets out Scottish Government's direction to the original smoke free 2034 target. This long-term Framework is underpinned by a series of two-year action focused implementation plans. This first implementation plan will run until November 2025.
- 68. The Tobacco Framework recognises the rapidly changing landscape in Scotland, especially around the rise in popularity of vapes, where there should be a joint focus on the harmful effects of tobacco and vapes.
- 69. Other areas included in the Creating a smokefree generation and tackling youth vaping 'consultation launched in October 2023<sup>104</sup>. are being taken forward in the Tobacco and Vapes Bill<sup>105</sup>, which was introduced in Westminster on 20th March. The Bill includes, among other things, provisions relating to the restriction of flavours, packaging and displays of vapes.

#### Alignment with National Performance Framework and other strategies

70. Eliminating the consumption of single-use vapes will contribute towards delivering the strategic aims within the Scottish Government's draft Circular Economy Route Map<sup>106</sup>, and forms part of the system-wide vision to accelerate more sustainable use of our resources across the waste hierarchy between now and 2030.

<sup>&</sup>lt;sup>101</sup> Tobacco Control Laws - Bans on e-cigarettes. Live Search, accessed February 2024.

 <sup>&</sup>lt;sup>102</sup> Tobacco Control Strategy - Creating a Tobacco-Free Generation. Scottish Government, 2023
<sup>103</sup> Raising Scotland's tobacco-free generation: our tobacco control action plan 2018. Scottish Government, 2018.

<sup>&</sup>lt;sup>104</sup> Creating a smokefree generation and tackling youth vaping: your views. UK Government, Department Health & Social Care, 2024

<sup>&</sup>lt;sup>105</sup> Smokefree generation one step closer as bill introduced - GOV.UK (www.gov.uk)

<sup>&</sup>lt;sup>106</sup> Circular economy and waste route map to 2030: consultation. Scottish Government, 2024

- 71. With reference to the National Performance Framework (NPF)<sup>107</sup>, the proposed legislation is directly applicable to the following National Outcomes:
  - We value and enjoy our built and natural environment and protect it and enhance it for future generations<sup>108</sup>.
  - We reduce the local and global environmental impact of our consumption and production<sup>109</sup>.
- 72. The Circular Economy (Scotland) Bill<sup>110</sup> as introduced, includes measures to establish a legislative framework to support Scotland's transition towards a circular economy. The Circular Economy (Scotland) Bill completed Stage 1 in the Scottish Parliament on 20 March. The bill includes provisions to require Scottish Ministers to publish a strategy for a circular economy every 5 years and enables regulations to impose circular economy targets on the Scottish Ministers. Additional provisions include:
  - Powers to restrict the disposal of unsold goods;
  - Presenting local authorities with new powers and responsibilities for collection of household waste, including allowing Scottish ministers to set the recycling targets;
  - More enforcement powers to tackle issues such as fly-tipping;
  - Improvement of waste monitoring; and
  - Powers to introduce charges for single-use items.
- 73. The Bill aims to accelerate Scotland's journey towards a circular economy, and the proposed ban on single-use vapes align with this ambition by phasing out single-use items and encouraging the adoption of reusable alternatives.
- 74. The Scottish Government launched a consultation on Scotland's draft Circular Economy and Waste Route Map to 2030<sup>111</sup> in January 2024. The Route Map sets out how Scotland should deliver its circular economy ambitions, making use of the new powers included in the Circular Economy (Scotland) Bill.
- 75. Measures in the Route Map are grouped under four strategic aims, which reflect the span of the waste hierarchy:
  - Reduce and reuse (including a commitment to 'consult on actions regarding the environmental impacts of single-use vapes'.)
  - Modernise recycling;
  - Decarbonise disposal; and
  - Strengthen the circular economy.

<sup>&</sup>lt;sup>107</sup> National Performance Framework. Scottish Government, accessed February 2024

<sup>&</sup>lt;sup>108</sup> National Outcome: We value and enjoy our built environment and protect it and enhance it for future generations. Scottish Government, accessed February 2024

<sup>&</sup>lt;sup>109</sup> National Outcome: We reduce the local and global environmental impact of our consumption and production. Scottish Government, accessed February 2024

<sup>&</sup>lt;sup>110</sup> Circular Economy (Scotland) Bill. Scottish Government, 2023

<sup>&</sup>lt;sup>111</sup> Circular economy and waste route map to 2030: consultation. Scottish Government, 2024

#### Consultation

#### Within Government

- 76. The Scottish Government Environment and Forestry Directorate has engaged with other relevant teams across the Scottish Government regarding the potential impacts of the policy on:
  - Socio-economic inequality issues such as low income, low wealth, and area deprivation;
  - Different geographic communities including island communities;
  - People with protected characteristics; and
  - Businesses, including the retail industry and vape producers.

#### **Public Consultation**

- 77. A four nations public consultation, 'Creating a smokefree generation and tackling youth vaping'<sup>112</sup> ran from 12 October to 6 December 2023. This consultation detailed the governments' policy intent for future direction on both smoking and how to tackle youth vaping.
- 78. Consultation responses with regards to vapes were strongly supportive of a ban on the sale and supply of single-use vapes.
- 79. As a result of the responses to the consultation, the Scottish Government, alongside the UK and Welsh governments intend to introduce legislation to implement a ban on the sale and supply of single-use vapes.
- 80. In February 2024, Scottish Government held a two week consultation (23rd February 3<sup>rd</sup> March 2024) on the draft 'Environmental Protection (single-use Vapes) (Scotland) Regulations 2024'.<sup>113</sup> This consultation also confirmed the proposed coming into force date of the regulations as 1 April 2025.
- 81. The Regulations have been updated to take into account responses to the consultation on the draft regulations.
- 82. This Partial BRIA is being published alongside a Scottish Government consultation paper on the final package of measures.
- 83. The consultation is accompanied by a full suite of impact assessments including this BRIA, an <u>equalities impact assessment</u>, <u>fairer Scotland duty</u> <u>assessment</u>, <u>island community impact assessment</u>, <u>children's rights and</u> <u>welfare assessment</u> and a <u>strategic environmental assessment report</u>.

<sup>&</sup>lt;sup>112</sup> Creating a smokefree generation and tackling youth vaping. UK Government, 2023

<sup>&</sup>lt;sup>113</sup> Consultation on Draft Environmental Protection (Single-use Vapes) (Scotland) Regulations 2024. Scottish Government, 2024.

84. This public consultation will run for 6 weeks between Tuesday 2<sup>nd</sup> April 2024 to Tuesday 14 May 2024.

#### Business

- 85. All registered vape and tobacco retailers in Scotland have been contacted to notify them of the policy proposal and consultations.
- 86. Engagement with business will also take place through the Scottish Firms Impact Test (SFIT), which will help to identify:
  - Industry views on the implementation considerations for a ban on singleuse vapes. i.e., what actions may different businesses take in response? Will they pivot towards reusable vapes, supply secondary equipment such as liquids, or exit the market altogether? Or a mixture of the above?
  - What effect will these actions have on consumer demand and overall material use?
  - The potential for unintended consequences of the ban e.g. what will happen to surplus stock if not sold prior to the ban.
- 87. To understand the full impacts of the implementation of proposed legislation on small, medium, and large businesses, discussions with an appropriate cross-section of affected business stakeholders will be held. It is expected that the following stakeholder groups will be directly affected by the implementation of the proposed legislation.
  - Scottish manufacturers
  - Importers/suppliers
  - Wholesalers
  - Retail and retail representative bodies
  - Recycling and waste management organisations
- 88. The following stakeholder groups are expected to be indirectly affected by the implementation of proposed legislation:
  - Raw material suppliers
  - Equipment suppliers
- 89. All engagement will adhere to our commitments under the World Health Organisation Framework Convention on Tobacco Control (FCTC) Article 5.3. This ensures our tobacco control policies are protected from commercial and other vested interests of the tobacco industry.

#### Options

- 90. The policy options considered in this analysis have been designed in line with the objectives set out above: to eliminate the consumption of single-use vapes and therefore reduce the environmental harm caused. Each option is compared against a common baseline which is the business-as-usual case.
- 91. A number of alternative policy options were given consideration but were filtered out when set against a policy success criteria. The full screening process is available in Defra's IA<sup>114</sup>. The alternative policy options included the following:
- Implementation of a Deposit Return Scheme (DRS) for single-use vapes. This option would entail deposits being placed on single-use vapes to incentivise people to recycle them. Though this could help with increasing recycling of single-use vapes and thereby reduce negative impacts on the environment, it would also end up having cost implications for vape producers, Local Authorities through the cost of recycling and monitoring compliance, and costs through establishing dedicated vape bins. This option would be less likely to promote the use of reusable alternatives and would also take several years to implement, when the problem under consideration is growing at an exponential rate. Further, the country currently lacks suitable facilities to recycle these products and so this option is less likely to be feasible.
- **Request-only option.** This option would involve single-use vapes being available by request-only in all settings, but not readily on display (i.e. only made available if a consumer specifically asks for one). This would be similar to the current approach with tobacco products whereby retailers make temporary, limited size displays on request when selling a tobacco product to a customer aged 18 or over, though specialist tobacconists are still able to display tobacco in designated tobacco areas (i.e. specialist tobacconists can display and advertise tobacco products inside their shops provided they are not visible from the outside). Unlike tobacco products, there are no measures to regulate the display of vaping products in shops in Scotland. Vaping products are openly and prominently displayed on countertops, at till points and in eye-catching display towers on shop floors.<sup>115</sup> Concern has been expressed about children seeing and easily picking up vapes due to them being displayed within aisles, close to sweets and confectionary products and on accessible shelves.<sup>116</sup> However, the impacts in reducing the usage of single-use vapes are uncertain with a request-only option. It would be more likely to act as a barrier for children and prevent them from vaping, but not necessarily for adult vapers. This in turn may not fully reduce the current environmental impacts being faced and so this option does not specifically

<sup>&</sup>lt;sup>114</sup> Impact Assessment on the Proposal to ban the sale and supply oof disposable vapes (UK-wide assessment). Department for Environment, Food and Rural Affairs (Defra), 2024.

<sup>&</sup>lt;sup>115</sup> Shop displays of tobacco and vaping products - House of Commons Library - 2023

<sup>&</sup>lt;sup>116</sup> Stopping the start: our new plan to create a smokefree generation - UK Gov - 2023

target the policy objectives specifically related to the environment. It would also be more difficult for enforcement bodies to monitor if businesses are complying with this regulation and would likely have no effect on online consumption, where it is estimated that 30-35% of consumers purchase online.<sup>117</sup>

- Take-back scheme. This option would build upon what is already in place with the current WEEE regulations. This will increase accessible take-back and recycling solutions, since it has been suggested that recycling facilities are not easily accessible. This would involve the introduction of retailer collection points or designated vape bins in more retailers and places like schools/universities and other public spaces. Responses to the DHSC Call for Evidence<sup>118</sup> frequently mentioned that schools should have designated 'vape bins' where children could safely dispose of vapes, both to decrease littering and to take away opportunities for children to pick up discarded vapes to use or sell, which is an issue in schools.<sup>119</sup> Moreover, this option would make it easier for people to dispose of vapes correctly without having to go to a HWRC or a store with designated bins. However, this option is likely to be very costly to stores and schools, and even if more vapes were placed in these 'vape bins' there is no guarantee they would end up being recycled due to the lack of recycling infrastructure in the UK and so could end up in landfill instead. Furthermore, given the prevalence in use by children (including being sold illegally to those underage), these consumers may not want to return to stores as they are likely hiding using them to begin with so there would be a lack of compliance.
- Creating recycling infrastructure to deal with disposable vapes. A key challenge of dealing with single-use vapes is the lack of a well-established recycling infrastructure in Scotland. As such, there is currently a limited infrastructure for what is a growing waste stream. Currently, the Environment Agency advises that manual dismantling is the only form of treatment for recycling vapes. To increase capacity for vape recycling, it could move towards a more mechanical treatment process, with potential procedures including using a nitrogen blanketing system to mitigate fire risk or a wet shredding system to suppress fires.<sup>120</sup> However, this would require significant investment and it could take several years for this infrastructure to be built whilst the problem is growing meaning there could be increased harm to the environment in the meantime. Therefore, it would not be a feasible option and it would also not be promoting reusable alternatives.
- Improved product design of disposable vapes for easier recyclability. A standardisation for the design and recycling of single-use vapes could ease the burden on recyclers and enable automation of the recycling process, as opposed to manual dismantling. However, any product standard would take time to develop, implement and enforce, potentially disrupting the availability of vape products to those who require them. This option also fails to promote the use of reusable alternatives to single-use vapes. Due to concerns over

<sup>&</sup>lt;sup>117</sup> Eunomia (2023) Analysis of the Market for Vapes (unpublished)

<sup>&</sup>lt;sup>118</sup> Youth vaping Call for Evidence - UK Gov - 2023

<sup>&</sup>lt;sup>119</sup> Eunomia (2023) Environmental Impacts of Vapes (unpublished)

<sup>&</sup>lt;sup>120</sup> Eunomia (2023) Analysis of the Market for Vapes (unpublished)

feasibility, this option was not considered a reasonable alternative to banning the sale and supply of single-use vapes.

- Information campaign to increase the number of disposable vapes being recycled (non-regulatory option). 75% of vapers think that producers and retailers should provide more information that vapes can be recycled and the word "disposable" should no longer be used in any marketing and promotion.<sup>121</sup> An information campaign specifically targeted at disposable vapes, making the instructions of the safe disposal of them more readily available (i.e. consumers knowing that they should always recycle rather than bin or litter their vapes) would raise public awareness of how to safely recycle disposable vapes. However, this could come with complications due to limited recycling capacity in Scotland. Additionally, this approach would be unlikely to achieve the policy objective of accelerating the reduction in environmental harm over time.
- **Prescribing single-use vapes.** The licensing and regulation of medicines in • the UK is reserved to the UK Government and undertaken on their behalf by the Medicines and Healthcare Products Regulatory Agency (MHRA). That includes nicotine-containing products used for medicinal purposes, such as patches or lozenges. It is the MHRA (rather than a UK Government minister) that determines whether a medicine is available on the UK market: either only on prescription, or restricted sale through pharmacies, or for general sale at any retail outlet. There are currently no nicotine vapour products (NVPs) approved by the MHRA for prescription. Vapes cannot be offered on prescription unless and until the MHRA acted to licence an NVP. To achieve a licence, products need to meet the standards of quality, safety, and efficacy expected of medicinal products. If successful, this would allow products to be made available for prescription in Scotland. Approval of a licensed NVP to be prescribed by NHS healthcare professionals in Scotland would generally be achieved through an application to the Scottish Medicines Consortium (SMC), and if recommended for use, consideration by the local Area Drug and Therapeutic Committees of the NHS Boards. However, without a company successfully applying for a licence for their NVPs to be put on a prescription basis the Scottish Government does not have a route to put vapes on prescription and cannot act to make vapes (or single use vapes) prescriptiononly.
- 92. Non-regulatory options have been disregarded. Evidence of the voluntary uptake, use and effectiveness of existing non-Regulatory action indicates that regulatory action is needed. The policy aims to ban the sale and supply of single-use vapes in their entirety.

**Option 1.** Business-as-usual or do-nothing approach. This would maintain the status quo, where sellers of single-use vapes can continue to supply them onto the Scottish market with no restrictions.

**Option 2.** Implementation of a ban on single-use vapes.

<sup>&</sup>lt;sup>121</sup> <u>Number of disposable single-use vapes thrown away have in a year quadrupled to 5 million per</u> <u>week - Material Focus - 2023</u>

93. The concurrent IA being undertaken by the Department for Environment, Food, and Rural Affairs (Defra) on banning single-use vapes considers other options alongside their preferred option of a ban. These are:

Option 0: 'Do nothing'.

**Option 1 (preferred):** A ban on the sale and supply of single-use vapes.

**Option 2 (non-regulatory):** Information campaign to increase the number of single-use vapes being recycled.

94. Defra's draft Impact Assessment concludes that Option 2 (non-regulatory action) has a low likelihood of being effective and being unable to address the issue quickly, and has therefore not been pursued.

#### **Sectors and Groups Affected**

- 95. A ban on single-use vapes has the potential to impact upon everybody in Scotland who vapes. The proposed ban is intended to apply across Scotland and does not specifically target particular groups, geographical locations, or sections of society.
- 96. The following sectors and groups will be directly or indirectly impacted by the implementation of the ban on single-use vapes:
  - Producers and importers of single-use vapes.
  - Retailers and wholesalers of single-use vapes.
  - Consumers of single-use vapes.
  - Healthcare sector.
  - Public sector (local authorities and Scottish Government).
  - Waste management sector.
- 97. The results from the public consultation process will be used to further inform understanding of the extent of the impact on different sectors and groups.

#### **Benefits**

98. **Option 1 - business-as-usual or do-nothing approach.** The benefits of not implementing the policy are that businesses can continue to supply and sell single-use vapes as usual. This provides businesses with the revenue they gain from the sale of single-use vapes and continues to provide consumers with a product they desire. Considering the growing body of evidence of the

negative impacts of single-use vapes, businesses will have the flexibility to choose their own response, which could come in the form of stopping sales of single-use vapes, implementing their own or industry take-back and/or recycling scheme, or through better consumer awareness campaigns. However, the profitability of single-use vapes to some businesses is undoubtedly a barrier to those businesses moving away from selling them, of their own accord.

- 99. Option 2 implementation of a ban on single-use vapes. The main benefits are the reductions in the negative externalities associated with the manufacture, use, and inappropriate disposal of single-use vapes as well as improved health outcomes for society. Reduced litter clean-up costs are a direct saving for local authorities and other organisations who clean up littered single-use vapes. Individuals and communities in Scotland will benefit from less visual disamenity of litter associated with single-use vapes. Waste management workers and their organisations would benefit from a reduced fire risk in their operations.
- 100. Society will also benefit from less harmful effects of problematic materials and potentially chemicals in certain single-use vapes leaking and persisting in terrestrial and marine environments. This will also more generally influence consumer and business behaviour change away from single-use to reuse to help to tackle our throwaway culture and move towards more circular practices. A ban on the supply and sale of single-use vapes will signal to consumers that they should pursue reusable options instead. This will correct the current market failures and move the use of vapes in Scotland towards a more socially optimal outcome.
- 101. Current producers of reusable alternatives and associated components could stand to benefit from a ban. As mentioned previously, there is a domestic market for e-liquid production in Scotland, hence these businesses could see increased revenue and market share as a result. There is currently little data available on this market and so potential impacts cannot be known at this stage. However, because single-use vapes will no longer predominate the vapes market, there could be lower barriers to entry for reusable and associated components producers, and more opportunities from which to enter the market.

#### Costs

102. **Option 1 - business-as-usual or do-nothing approach.** Under this scenario, the consumption of single-use vapes will continue to grow in line with current projections. The negative externalities associated with the manufacture, use, and incorrect disposal of single-use vapes will also continue to grow. This includes, but is not limited to, local authority waste disposal costs, private waste disposal costs, the visual disamenity of litter, and the impact of harmful materials and chemicals entering and persisting within terrestrial and marine ecosystems. There will also be a rise in material use associated with the continued manufacture of single-use vapes. Waste

management workers and their organisations will also continue to be at an increased risk of fire from improper disposal of single-use vapes.

- 103. Option 2 implementation of a ban on single-use vapes. Businesses who currently supply and sell single-use vapes will lose this revenue stream. Consumers will lose access to the product they desire. However, there will be differences in consumer responses to the loss of access to single-use vapes. Those who use single-use vape products may choose to switch to reusable vapes and some may choose to stop vaping altogether. Others may choose to smoke tobacco products but this would involve a significantly higher cost, both in terms of personal finance and wider health, social, and economic costs to society. Currently, it is not possible to accurately forecast these patterns following a ban.
- 104. There will also be costs involved in the implementation of the policy, such as development, communications, data collection and analysis, and enforcement. These can be divided into one-off, 'start up', costs and ongoing costs.
- 105. In March 2024 Defra published an impact assessment which considered costs of implementing a ban on single use vapes across the UK<sup>122</sup>. Based on the methodology set out in that assessment, it is possible to apportion business costs to Scottish single-use vape retailers and wholesalers.
- 106. The most prominent business cost will be the lost profits to retailers unable to sell single-use vapes. There is no exact information available on the specific profit that retailers see from the sale of single-use vapes. Instead, a proxy of sectoral profit was taken from data from the Annual Business Survey (ABS) and calculated by dividing gross value added (GVA) by turnover, for the three retail SIC codes (4711, 4719, and 4726)<sup>123</sup>.
- 107. Defra's desk-based research has estimated an average (central) cost of a single-use vape to be £5.30, which is the basis for estimating lost profit. In order to calculate lost profit, this average price is multiplied by single-use vape sales for each year in their appraisal period, as a measure of revenue, which is then multiplied by the proxy of sectoral profit (24%) to calculate the total amount of lost profit. To produce a Scottish-specific estimate, the number of single-use vape sales for each year have been multiplied by the percentage of Scotland's population out of the entire UK (8.18%<sup>124</sup>), which is then multiplied by the average cost of a vape and the GVA/turnover ratio.
- 108. Table 1 below demonstrates the potential lost profit to Scottish retailers based on this approach. Note that this approach was chosen rather than population share being applied to the overall lost profit in Defra's assessment,

<sup>&</sup>lt;sup>122</sup> <u>Disposable Vapes Impact Assessment.</u> Defra, 2024

<sup>&</sup>lt;sup>123</sup> Under the Scottish Annual Business Statistics (SABS), the SIC codes are only represented at the two-digit level, (retail trade, except of motor vehicles and motorcycles), so Scottish-specific GVA/turnover ratio calculation is not possible.

<sup>&</sup>lt;sup>124</sup>Population estimates for the UK, England, Wales, Scotland and Northern Ireland: mid-2021. Office for National Statistics, 2022

as these are rounded to the nearest £ million and would potentially be less accurate.

Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Single-	35.7	42.5	50.0	58.1	66.6	75.5	84.5	93.4	102.0	109.9
use vape										
sales										
(millions)										
Profit loss	45.4	54.1	63.6	73.9	84.7	96.0	107.5	118.8	129.7	139.8
(£m)										

Table 1: Lost profit estimates. Source: Defra IA with Scottish population adjustments

- 109. These calculations of lost profits on the sales of single-use vapes omit the impacts that product substitution will have. Single-use vapes contain nicotine, an addictive substance, and it can be reasonably assumed that many users will switch to a reusable alternative instead. Therefore, the net impact on lost profits to the industry will be smaller than estimated above. The relative profit margins between the two product types (single-use and reusable) are not fully understood at this point, therefore retailers may see a higher or lower margin on alternative products depending on individual business models.
- 110. Calculations of lost profits are predicated on a 2024 baseline, which reflects those products currently on the market and generating revenue. Due consideration must be given to the novelty and rapid growth of single use vapes over the last 2-3 years, with the proportion of adults using single-use vapes just 0.1% in January 2021<sup>125</sup>.
- 111. Lost profit calculations also assume that no additional action is taken that could impact the growth or profitability of single use vapes. Proposals such as a new Vaping Products Duty are proposed by the UK Government or new producer responsibility obligations introduced through the WEEE Regulations could reduce the lost profits estimated here. It may be unreasonable to expect that market growth of single use vapes will continue at current rates, with single use vapes already accounting for 50% of the total vapes market<sup>126</sup>. As a novel product there are limited data available to reliably establish future growth trends.
- 112. It should also be noted that the figures presented account for all single use vape sales. However, the Health Behaviour in School-Aged Children (Scotland) study reports that 3% of 11-year-olds, 10% of 13-year-olds and 25% of 15-year-olds said they had used a vape in the past 30 days and there

<sup>&</sup>lt;sup>125</sup> Who would be affected by a ban on disposable vapes? A population study in Great Britain. Sarah E. Jackson, Harry Tattan-Birch, Lion Shahab, Melissa Oldham, Dimitra Kale, Leonie Brose, Jamie Brown, 2024

<sup>&</sup>lt;sup>126</sup> Analysis of the Market for Vapes, Eunomia 2023

is a range of evidence to demonstrate a sharp growth in youth vaping<sup>127</sup>. 69% of children state that single use vapes were the type of device they used most <sup>128</sup>. It can therefore be expected that these total market and profit figures will likely include some illegal sales to those under 18.

- 113. There will be familiarisation costs to Scottish retailers and wholesalers. These are one-off costs for businesses upon implementation of the ban. This is representative of the time taken to inform employees about the ban, costs attached to any necessary product price changes, and time taken to source alternative suppliers for substitutive products such as reusable vapes.
- 114. To monetise this cost, the same SIC codes as the lost profit calculations above were used, as well as four SIC codes for wholesalers. There is an assumption by Defra that familiarisation would take 30 minutes of an employee's time. This was costed at the median hourly wage for each SIC code and uplifted by 22% based on additional non-wage labour costs. Unlike the analysis on lost profit, the number of businesses in each SIC code can be measured accurately for Scotland using NOMIS UK Business Count data which can be filtered for Scotland<sup>129</sup>. Table 2 below demonstrates these estimated costs.

Industry	Scotland	Median hourly wage (£)	familiarisation cost per business (£)	Total familiarisation costs for businesses in SIC code (£)
47110 : Retail sale in non- specialised stores with food, beverages or tobacco predominating	2,840	13.42	8.19	23,260
47190 : Other retail sale in non-specialised stores	520	13.84	8.44	4,389
47260 : Retail sale of tobacco products in specialised stores	130	11.79	7.19	935
46170 : Agents involved in the sale of food, beverages and tobacco	80	15.81	9.64	771
46350 : Wholesale of tobacco products	10	21.06	12.85	129
46390 : Non-specialised wholesale of food, beverages and tobacco	195	14.24	8.69	1,695
46760 : Wholesale of other intermediate products	65	17.18	10.48	681

115. In total, familiarisation costs for Scottish retailers and wholesalers from the ban is estimated to result in £31,859, an average of £8.30 per business.

<sup>&</sup>lt;sup>127</sup> Use of e-cigarettes among young people in Great Britain. ASH, 2023,

<sup>&</sup>lt;sup>128</sup> Health behaviour in school aged children - HBSC Scotland Study 2022

<sup>&</sup>lt;sup>129</sup> UK Business Counts – official census and labour market statistics. NOMIS, Enterprises by industry and employment size band live search 19 March 2024.

Column Total	3,840			31,859			

Table 2: Scottish retailer and wholesaler estimated familiarisation costs. Source: Defra IA with Scottish business count adjustments

- 116. There are also a range of non-monetised costs for business. Retailers may see additional costs as a result of purchasing reusable alternatives. Generally, reusable vapes are more expensive at point of purchase, which may pose some inventory and cash flow issues for businesses. This depends, however, on product ranges, and whether single-use or reusable vapes predominate sales. In such a new and fast evolving market information is still scarce, particularly on product types and market shares. Additionally, if businesses have excess stock of single-use vapes by the time the ban is implemented, this may incur additional disposal costs. This issue however is expected to be small as retailers will have sufficient time to prepare for the ban and should be able to adjust their inventory levels accordingly.
- 117. Producer business impacts are not included here as there is little to no evidence to suggest that domestic manufacturing of single-use vapes takes place in Scotland. Therefore, lost profit, familiarisation costs, capital investment, alternative material costs, and others for producers are not considered here.
- 118. The Defra Impact Assessment which these calculations are based off has an overall negative net present value (NPV), due to the non-monetisable nature of many of the benefits, and the focus on two main monetisable business costs. This does not, however, mean that the overall impact of the proposed ban on single-use vapes could not positive, as it is clear to see the significant societal and environmental cost imposed by their manufacture, use, and improper disposal, weighed against the profit generation from their sale in Scotland.
- 119. As such, an overall NPV summary table of the costs and benefits of the policy is not included here as there is no direct monetary comparison to be made between the costs and benefits. A fuller account of monetisable and non-monetisable costs and benefits will be presented in the final BRIA

# **Regulatory and EU Alignment Impacts**

#### Intra-UK Trade

Is this measure likely to impact on intra-UK trade?

120. No, it is not anticipated this measure will impact on intra-UK trade as all nations have plans to impose a similar ban.

#### International Trade

Is this measure likely to impact on international trade and investment?

- 121. Yes, it is anticipated this measure will impact on international trade.
- 122. The measure will reduce the number of single-use products imported into Scotland. There is no evidence to suggest there is domestic manufacturing of single-use vapes and there is a large domestic market for single-use vapes, so it can be inferred that the vast majority of single-use vapes are imported products. International trade will therefore be negatively impacted as there will no longer be a market for single-use vapes in Scotland. Based on prior evidence, it can be reasonably assumed that the majority of these imports are coming from China<sup>130</sup>.

#### **EU Alignment**

Is this measure likely to impact on the Scottish Government's policy to maintain alignment with the EU?

123. No, it is not expected that this measure will impact on the Scottish Government's policy to maintain aligned with the EU. The EU is not proposing its own EU-wide ban on the sale of single-use vapes, but several member nations have and/or are considering similar measures. Furthermore, such a policy aligns with many of the EU's circular economy and environmental objectives.

# **Scottish Firms Impact Test**

- 124. Stakeholders from all affected businesses will be consulted on the proposed ban on single-use vapes. Up to 12 businesses and business organisations of varying size will be consulted and the results published in the Final BRIA. This process will help to establish:
  - Industry views on the implementation considerations for a ban on singleuse vapes. i.e., what actions may different businesses take in response? Will they pivot towards reusable vapes, supply secondary equipment such as liquids, or exit the market altogether? Or a mixture of the above?
  - What effect will these actions have on consumer demand and overall material use?
  - The potential for unintended consequences of the ban e.g. what will happen to surplus stock if not sold prior to the ban.
- 125. The approach for engagement will consist of:
  - Questionnaires for completion by key business stakeholders.
  - Telephone interviews and email correspondence with selected representative organisations and associates.

# **Competition Assessment**

<sup>&</sup>lt;sup>130</sup> Analysis of the market for vapes: exploring the environmental impacts of single-use vapes. Eunomia, 2023.

Explain here whether your proposals will have an impact on competition ensuring you provide evidence to back up any statements you make.

- Will the measure directly or indirectly limit the number or range of suppliers?
  - 126. The policy will directly limit the number and range of suppliers in Scotland through an outright ban on the sale of single-use vapes. Because the vast majority of single-use vapes are manufactured outside Scotland it is unlikely there will be significant effects on domestic manufacturers. While it is possible that the policy will limit the number and range of imported vaping products available to importers and suppliers in Scotland, they can choose to switch to selling reusable alternatives and associated consumables. It is also possible that the policy will limit the number and range of domestic retailers of vaping products in Scotland, but retailers can also choose to switch to selling reusable alternatives and associated consumables.
- Will the measure limit the ability of suppliers to compete?
  - 127. As the policy bans the sale of single-use vapes, suppliers who sell exclusively or predominantly single-use vapes will encounter limitations in their ability to compete, unless they switch to a reusable alternative or associated product. There could be positive competition impacts in alternative products, such as reusable vapes, through increased demand for these products encouraging new entrants into the market.
- Will the measure limit suppliers' incentives to compete vigorously?
  - 128. No, since the ban on the supply of single-use vapes is expected to be applied uniformly across Scotland (along with England and Wales. Northern Ireland officials acknowledge the issues raised during the consultation and will consider potential legislation in future), it will create a level playing field for all businesses. Therefore, it is not expected that there will be competition issues with consumers switching to a different retailer to request these items. Businesses will also be on a level playing field as they will not be able to undercut each other by offering cheaper single-use vapes as those will be banned.
- Will the measure limit the choices and information available to consumers?
  - 129. Yes, consumers will no longer be able to purchase single-use vapes, but will not be restricted in the information they are able to receive. However, consumers will be able to switch to alternative products if they wish to. It is expected that some consumers will quit vaping entirely as a result of the policy proposal.

# **Consumer Assessment**

Explain here whether your proposals will have an impact on consumers ensuring you provide evidence to back up any statements you make.

- Does the policy affect the quality, availability or price of any goods or services in a market?
  - 130. The policy will remove the availability of single-use vapes from the market in their entirety. There may be indirect impacts on the price or quality of reusable alternatives and the vape market in general as a result of the ban.
- Does the policy affect the essential services market, such as energy or water?

131. No

• Does the policy involve storage or increased use of consumer data?

132. No

- Does the policy increase opportunities for unscrupulous suppliers to target consumers?
  - 133. There may be the risk of the growth of an illicit market for single-use vapes. The illegal vape market already poses concern with issues such as banned ingredients, oversized tank sizes and exceeding legal nicotine strengths. It has been suggested that the illegal vape market could be comparable in size to the legal vape market<sup>131</sup>.
  - 134. Local authority officers (anticipated to be Trading Standards Officers) will be granted enforcement powers in order to enforce the Scottish regulations, which will mitigate against the risk associated with an illicit market for single-use vapes.
  - 135. The UK Government have allocated £30 million new funding a year, which will be provided to bolster enforcement agencies, including Border Force and HM Revenue and Customs (HMRC), which will support enforcement in Scotland.
- Does the policy impact the information available to consumers on either goods or services, or their rights in relation to these?

136. No

• Does the policy affect routes for consumers to seek advice or raise complaints on consumer issues?

137. No

### **Test Run of Business Forms**

<sup>&</sup>lt;sup>131</sup> Analysis of the Market for Vapes: Exploring the environmental impacts of single-use vapes, Eunomia (2023)

138. It is not envisaged that the introduction of these regulations will result in the creation of new forms for businesses or result in amendments of existing forms.

# **Digital Impact Test**

• Does the measure take account of changing digital technologies and markets?

• Will the measure be applicable in a digital/online context?

- Is there a possibility the measures could be circumvented by digital / online transactions?
  - 141. Illicit websites may be able to offer consumers the option to purchase and import single-use vapes illegally.
- Alternatively, will the measure **only** be applicable in a digital context and therefore may have an adverse impact on traditional or offline businesses?
  - 142. The legislation would be applicable equally to both digital and traditional businesses and would therefore not result in an adverse impact on traditional or offline businesses.
- If the measure can be applied in an offline **and** online environment will this in itself have any adverse impact on incumbent operators?
  - 143. No.

# Legal Aid Impact Test

144. The Access to Justice Team at Scottish Government will be consulted, however, little to no impact on Legal Aid is expected as it is assumed that the majority of any prosecutions would be for businesses, rather than individuals.

# **Enforcement, Sanctions and Monitoring**

145. Local authority officers (anticipated to be Trading Standards Officers) will be granted enforcement powers in order to enforce the Scottish

<sup>139.</sup> Potential changes in digital technologies and markets are being accounted for during the development of this legislation.

<sup>140.</sup> The ban will apply to both online and offline retailers, as they apply to all affected products that enter the Scottish market.

regulations, which will mitigate against the risk associated with an illicit market for single-use vapes.

146. The UK Government has allocated £30 million new funding a year, which will be provided to bolster enforcement agencies, including Border Force and HM Revenue and Customs (HMRC), which will support enforcement in Scotland.

# **Implementation and Delivery Plan**

How will the proposal be implemented and in what timescale?

147. The Scottish Government has set out a timetable for implementation and confirmed that a ban will commence on 01 April 2025, in line with other UK nations. This will give businesses involved in the manufacture, import, trade, and sale of single-use vapes time to prepare for the ban and transition to alternatives. Many businesses will already be aware of the proposed ban as it is being undertaken by the UK Government and other devolved administrations as well.

# **Post-implementation Review**

# When and how will a review of whether the legislation is still fit for purpose take place?

148. The final BRIA, informed by the consultation process and engagement events will draw upon a wider evidence base in order to identify measures. A strategy for monitoring and evaluation will be devised, based on this information. This will include details of when the monitoring and evaluation will take place and who will be responsible for undertaking it.

# **Declaration and Publication**

The Cabinet Secretary or Minister responsible for the policy (or the Chief Executive of non-departmental public bodies and other agencies if appropriate) is required to sign off all BRIAs prior to publication. Use appropriate text from choices below:

I have read the Business and Regulatory Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options. I am satisfied that business impact has been assessed with the support of businesses in Scotland.

Signed:

Lona Hater

Date: 25 March 2024 Minister's name: Lorna Slater MSP

Minister's title: Minister for Green Skills, Circular Economy and Biodiversity

Scottish Government Contact point: Product Stewardship Team – product stewardship@gov.scot



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