The UK economic and R&D impact of BAT’s alternative nicotine products

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What are alternative nicotine products?

Alternative nicotine products refer to a range of consumer products that don’t burn tobacco to deliver nicotine to the user. Because there is no combustion and therefore no smoke, they are a potentially less risky alternative to smoking tobacco cigarettes. Vapour products are the most popular category in the UK, followed by oral nicotine pouches. Neither of these products contain tobacco and are the focus of BAT’s UK portfolio. Tobacco heating products are also available.

**VAPOUR PRODUCTS**
These are handheld battery powered electronic devices which heat an “e-liquid” to create a vapour which can be inhaled.

**ORAL NICOTINE POUCHES**
This is a non-tobacco oral nicotine product made of plant-based cellulose material, nicotine and flavourings, which is placed under the lip.

**TOBACCO HEATING PRODUCTS**
These are handheld battery-powered electronic devices that heat tobacco to generate a nicotine-containing aerosol with a tobacco taste, which the user inhales.

Reasons for using vapour products

- Aid to stop smoking*
- Perception that they are less harmful than cigarettes
- Cheaper than tobacco products
- Other

Main reason given for vaping, 2019

51% Other
25% Cheaper than tobacco products
9% Perception that they are less harmful than cigarettes
15% Aid to stop smoking*

59% of vapers in 2020 were ex-smokers. A further 38% were existing smokers who also vaped.

Source: Action on Smoking and Health

How big is the market?

**Vapour and tobacco heating product sales, total UK market, £m**

- 2018: £800m
- 2019: £1,100m
- 2020: £1,300m*
- 2021: £1,500m*

Source: BAT

*BAT Forecast

**Number of UK vapers**

- 2014: 1.9 million
- 2019: 3.1 million

Source: ONS

*BAT’s alternative nicotine products sold in the UK are not smoking cessation aids nor are they marketed as such.
BAT’s alternative nicotine products business has a significant impact on the UK economy

BAT supports economic activity across the UK through its operations linked to alternative nicotine products. These operations include research and development (R&D), marketing and distribution, with the company’s products sold through its own specialist vape stores and websites, as well as independent vape stores, convenience stores and supermarkets. In 2019, these operations contributed £360 million to UK GDP.

The impact on the economy occurs through four channels: the direct, indirect and induced impacts of BAT’s own activity, plus the total impact arising from retailers, wholesalers and distributors selling the company’s products.

**Total economic impact of BAT’s UK alternative nicotine products, 2019**

- **£50 million** Direct impact
  - Employment and GDP supported by BAT’s own alternative nicotine product activity
  - **1,250 jobs**

- **£125 million** Indirect impact
  - Employment and GDP supported across its supply chain
  - **2,150 jobs**

- **£110 million** Induced impact
  - Employment and GDP from the spending of workers linked to BAT’s activity
  - **1,600 jobs**

- **£75 million** Retail impact
  - Total employment and GDP supported by the retail of BAT’s alternative nicotine products
  - **2,100 jobs**

**£360 million** to UK GDP

For every £1 contributed directly to UK GDP, a total of **£7.20** is supported across the economy

**7,100 jobs**

For every 100 direct employees, a total of **5.7 jobs** are supported across the economy

**BAT’s footprint across UK**

In 2020, the company operated 65 vape stores with 200 staff.

- BAT vape store locations
- BAT global headquarters
- BAT R&D centre

Source: BAT
Southampton is a global hub for BAT’s research into alternative nicotine products

BAT’s main global R&D centre for alternative nicotine products is based in Southampton. The company makes significant investments in research and science at this site, in areas ranging from battery technology and electronics, to biochemistry and pre-clinical toxicological trials.

Research spending at the site more than doubled between 2016 and 2020, and is expected to increase further in 2021. Of the company’s 2,240 total UK employees, some 320 are highly skilled specialists working in R&D in Southampton.

The company’s R&D operations supported a total contribution of £210m to UK GDP in 2019. This occurred through the research teams’ direct activities alongside supply chain operations supported by R&D procurement and the economic impact of involved workers spending their wages.

**BAT’s research into the effects of vapour products**

The company’s scientists have conducted 164 tests on its Vype brand of vapour products to investigate the impact on users, including:

- **27** Behavioural science tests to understand how customers use the vapour product
- **82** Chemistry tests to analyse what chemicals are in the vapour
- **35** Biological tests to see how the vapour reacts with human cells
- **20** Clinical tests to understand how vaping affects the whole body

BAT researchers concluded that these tests show that its Vype ePen 3 vapour product emits 99% less toxicants than cigarettes.*

*Comparison to 1R6F ref cigarette in reference to 9 harmful components WHO recommends to reduce in cigarette smoke. This quality does not necessarily mean this product is less harmful than tobacco products

**Annual BAT spending on R&D in the UK, nominal £m**

This is equivalent to approximately 2% of all business R&D spending in South East England in 2018

Source: ONS

**BAT Investments Ltd. were the UK’s seventh-largest patent applicant to the Patent Cooperation Treaty in 2019.**

Source: WIPO UK country profile

**BAT filed more than 170 patent applications in the UK in 2019 on new alternative nicotine products inventions.**

Source: BAT
The sale of alternative nicotine products by the wider retail sector supports economic activity in the UK

BAT is one of a large number of sellers of alternative nicotine products in the UK. The broader retail landscape for these products includes sales through traditional retailers such as supermarkets, though the majority of sales happen through websites and specialist vape stores. This retail activity supports further jobs and GDP contributions across the UK economy.

Alternative nicotine product sales channels, 2019

- 25% Traditional retailers
- 42% Online
- 32% Specialist vape shops

According to BAT estimates, alternative nicotine products are sold in:
- 24,500 independent convenience stores
- 7,400 petrol stations
- 5,000 pharmacies
- 1,200 independent vape stores
- 9,600 supermarkets

Over the last three years, total spend on vapour products as a share of total nicotine products in independent convenience stores has doubled.

Source: Retail Data

Total economic impact of UK alternative nicotine products retail 2019*

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Impact Amount</th>
<th>Jobs</th>
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<tbody>
<tr>
<td>Direct impact</td>
<td>£280 million</td>
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<tr>
<td>Indirect impact</td>
<td>£260 million</td>
<td>4,400</td>
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<tr>
<td>Induced impact</td>
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<td>4,000</td>
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<tr>
<td>Total economic impact</td>
<td>£805 million</td>
<td>17,800</td>
</tr>
</tbody>
</table>

For every £1 contributed directly to UK GDP, a total of £2.90 is supported across the economy.

For every 100 direct employees, a total of 190 jobs are supported across the UK economy.

*Our estimates capture the economic impact of the retailing of these goods, as well as the impact of BAT’s own R&D and head office activity. The estimates exclude any impacts from the manufacturing, R&D and administrative activity of non-BAT RRP companies due to lack of available data.
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BAT for the purposes of this report refers to one or all of the following entities: BAT PLC, BAT UK LTD, BAT Investments LTD, and Nicoventures Retail (UK) LTD.

Operations at BAT’s Southampton R&D centre also relate to combustible products. However, all figures in this report refer to alternative nicotine products only.

The modelling and results presented here are based on information provided by third parties, including BAT, upon which Oxford Economics has relied in producing its report in good faith. Any subsequent revision or update of those data will affect the assessments and projections shown.

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