

Title: EU Regulation on the Marketing and Use of Explosives Precursors IA No: HO Lead department or agency: HOME OFFICE Other departments or agencies: MINISTRY OF JUSTICE, HM TREASURY	Impact Assessment (IA)		
	Date: September 2013		
	Stage: CONSULTATION		
	Source of intervention: EU		
	Type of measure: Secondary legislation		
Contact for enquiries:			

Summary: Intervention and Options	RPC Opinion:
--	---------------------

Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Measure qualifies as Two-Out?
-£49.3m	-£47.8m	N/A	NO
			N/A

What is the problem under consideration? Why is government intervention necessary?

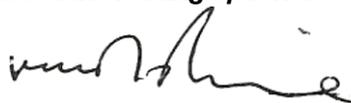
Chemicals that can be used to manufacture homemade explosives can be made available to the public by retailers.. Further Government intervention is necessary to deter and detect terrorist acquisition of explosive precursors and to comply with EU law.

What are the policy objectives and the intended effects? The policy objectives are to: <ul style="list-style-type: none"> • Prevent terrorists using explosives precursors in attacks. • Provide a mechanism to alert authorities to terrorist activity. • Minimise the burdens on industry and legitimate users.
--

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base) <u>Option 1</u> is to make no changes (do nothing). <u>Option 2</u> is to ban sales of Annex 1 chemicals above the concentration thresholds to the general public. <u>Option 3</u> is to allow the general public to purchase Annex 1 chemicals above the concentration thresholds if they hold a valid licence. <u>Option 4</u> is to allow the general public to purchase a subset of Annex 1 chemicals above the concentration thresholds with a licence, and another subset by entering personal details into a register at the point of sale. Above the concentration thresholds for the latter subset, the sale to the general public would be either a) banned or b) licensed. Options 2 to 4 also include a requirement for: <ul style="list-style-type: none"> • Labelling products affected by the restrictions in Annex 1 clearly to indicate that the acquisition, possession, introduction or use of the product is restricted. • Suspicious transaction, theft and significant loss reporting. This is necessary for all transactions involving Annex 1 and 2 chemicals at any concentration including business to business sales.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 2017					
Does implementation go beyond minimum EU requirements?				No	
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.		Micro Yes	< 20 Yes	Small Yes	Medium Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)				Traded: N/A	Non-traded: N/A

I have read the 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.

Signed by the responsible Minister:  Date: 24 SEP 2013

Summary: Analysis & Evidence

Policy Option 2

Description: Ban sales of Annex 1 chemicals above the concentration limits to the general public.

Price Base Year: 2013/14	PV Base Year: 2013/14	Time Period Years: 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -56.8	High: -25.9	Best Estimate: -41.3

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	5.3	2.4	25.9
High	10.0	5.5	56.8
Best Estimate	7.6	4.0	41.3

Description and scale of key monetised costs by 'main affected groups'

Transition costs to business in year one include: training and awareness raising of staff members (£3.1 to £7.6 million) verifying which products are affected (£1.7 to £2.0 million) and providing information to prospective buyers on new restrictions (£0.5 million) Ongoing costs to business of refresher training (£2.6 to £6.1 million)

For the public sector, there will be a one off cost to police in providing training (<£0.1m) and ongoing costs of monitoring compliance and enforcement (£0.1m)

Other key non-monetised costs by 'main affected groups'

The most significant cost that cannot be quantified is the loss of profit to business from the banned products and the impact on home users. There are additional costs that are assumed to be low, such as labelling affected products and ensuring that internet sales are compliant and views will be sought on this in the consultation. There may be a cost to the public sector from additional staffing of the anti-terrorism hotline and potential future enforcement costs to the Criminal Justice System due to non-compliance.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low			
High			
Best Estimate	NK		NK

Description and scale of key monetised benefits by 'main affected groups'

N/A

Other key non-monetised benefits by 'main affected groups'

The intended benefit of this policy is to reduce the likelihood or potential impact of a terrorist attack using an Improvised Explosive Device (IED). By banning general public use for high risk chemicals, the risk of misuse of these chemicals has been reduced. It is extremely difficult to estimate the current cost and probability of a terrorist attack, let alone the impact that this policy will have on these figures. Benefits have therefore not been quantified.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
-------------------------------------	-------------------	-----

Since most of the costs fall on business, the main sensitivity is around the number of businesses affected. It has not been possible to accurately estimate the number of businesses currently selling Annex 1 and 2 chemicals. We will seek to strengthen these estimates through the consultation. The impact of a ban has not been fully assessed due to the lack of evidence on the scale of home use of Annex 1 chemicals (above the concentration threshold) and business information on the value of this market in comparison to the alternatives. There is also a risk that businesses will not comply with the regulations and that the threat of misuse of these chemicals has not been significantly reduced, or that the threat is displaced.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs:	Benefits:	Net: N/A	NO	N/A

Summary: Analysis & Evidence

Policy Option 3

Description: Allow the general public to purchase Annex 1 chemicals above the concentration threshold if they hold a valid licence.

Price Base Year: 2013/14	PV Base Year: 2013/14	Time Period Years: 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -64.7	High: -33.8	Best Estimate: -49.3

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	5.4	1	3.3	33.8
High	10.1		6.4	64.7
Best Estimate	7.7		4.9	49.3

Description and scale of key monetised costs by 'main affected groups'
 Transition costs to business in year one include: training and awareness raising of staff members (£3.1 to £7.6 million) verifying which products are concerned (£1.7 to £2.0 million) and providing information to prospective buyers on new restrictions (£0.5 million) Ongoing costs to business are refresher training (£2.6 to £6.1 million) processing and keeping a record of licensed users (£0.8 million)
 For the public sector, there will be a one off cost to police in providing training (<£0.1m), the set-up cost of the licensing system (£0.1m), ongoing costs of monitoring compliance and enforcement (<£0.1m) and administering licences (£0.1m).

Other key non-monetised costs by 'main affected groups'
 The most significant cost that cannot be quantified is the loss of profit to business due to home use individuals being deterred from purchasing goods that require a licence, and the impact on consumers. This will not be as significant a cost as that of banning for Option 2. Additional costs are assumed to be low or negligible, such as: labelling affected products and ensuring that internet sales are compliant and the consultation will seek views on this. There are potential costs to public sector from additional staffing requirements of the anti-terrorism hotline and future enforcement costs to the criminal justice system (CJS) due to non-compliance or appeals.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		1		
High				
Best Estimate	NK			NK

Description and scale of key monetised benefits by 'main affected groups'
 N/A

Other key non-monetised benefits by 'main affected groups'
 The intended benefit of this policy is to reduce the likelihood or potential impact of a terrorist attack using an IED. By licensing general public use for high risk chemicals, the risk of misuse of these chemicals has been reduced. It is extremely difficult to estimate the current cost and probability of a terrorist attack, let alone the impact that this policy will have on these figures. Benefits have therefore not been quantified.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
-------------------------------------	-------------------	-----

As most of the costs fall on business, the main sensitivity is around the number of businesses affected. It has not been possible to accurately estimate the number of businesses currently selling Annex 1 and 2 chemicals. The consultation will seek to strengthen these estimates. The impact of licensing has not been fully assessed due to the lack of evidence on the scale of home use of Annex 1 chemicals (above the concentration threshold) and business information on the value of this market in comparison to the alternatives. There is a risk that: businesses will not comply with the regulations, the threat of misuse of these chemicals may not be reduced, or instead the threat is displaced and a licence could be issued to an inappropriate individual.

BUSINESS ASSESSMENT (Option 3)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs:	Benefits:	Net: N/A	NO	N/A

Summary: Analysis & Evidence

Policy Option 4

Description: To allow the general public to purchase a subset of Annex 1 chemicals above the concentration thresholds with a licence, and another subset by entering personal details into a register at the point of sale. Above the concentration thresholds for the latter subset, the sale to the general public would be either a) banned or b) licensed.

Price Base Year:	PV Base Year:	Time Period Years:	Net Benefit (Present Value (PV)) (£m)		
2013/14	2013/14	10	Low: -35.4	High: -66.2	Best Estimate: -50.8

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	5.3	3.5	35.4
High	10.0	6.6	66.2
Best Estimate	7.6	5.1	50.8

Description and scale of key monetised costs by 'main affected groups'

Transition costs to business in year one include: training and awareness raising of staff members (£3.1 to £7.6 million) verifying which products are affected (£1.7 to £2.0 million) and providing information to prospective buyers on new restrictions (£0.5 million). Ongoing costs to business are: refresher training (£2.6 to £6.1 million) and processing and keeping a register of transactions (£1.1m).

For the public sector, there will be a one off cost to police in providing training (<£0.1m) and ongoing costs of monitoring compliance and enforcement (£0.1m).

Other key non-monetised costs by 'main affected groups'

We are not aware of a significant demand for the licensed or banned chemicals therefore have not quantified the loss in profit and cost to consumers from a ban or licensing. Additional costs are assumed to be negligible such as: labelling affected products and ensuring that internet sales are compliant and the consultation will seek views on this. There are potential costs to the public sector from additional staffing requirements of the anti-terrorism hotline and future enforcement costs to the CJS due to non-compliance or appeals.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low			
High			
Best Estimate	NK		NK

Description and scale of key monetised benefits by 'main affected groups'

N/A

Other key non-monetised benefits by 'main affected groups'

The intended benefit of this policy is to reduce the likelihood or potential impact of a terrorist attack using an IED. It is extremely difficult to estimate the current cost and probability of a terrorist attack and the impact that this policy will have on these figures. Therefore, benefits have not been quantified.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

Since most of the costs fall on business, the main sensitivity is around the number of businesses affected. It has not been possible to accurately estimate the number of businesses currently selling Annex 1 and 2 chemicals. The consultation will seek to strengthen these estimates. The impact of licensing or registering or a ban has not been fully assessed due to the lack of evidence on the scale of home use of Annex 1 chemicals (above the concentration threshold) and business information on the value of this market in comparison to the alternatives. There is a risk that businesses will not comply with the regulations and that the threat of misuse of these chemicals may not be significantly reduced, or instead displaced. In particular, registration may not be a strong enough tool to prevent the misuse of Annex 1 chemicals.

BUSINESS ASSESSMENT (Option 4)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs:	Benefits:	Net: N/A	NO	N/A

Evidence Base (for summary sheets)

A. Strategic Overview

A.1 Background

This consultation stage impact assessment assesses the introduction of control measures for sales of chemicals that can be used to make homemade explosives.

EU regulation

The Regulation on the Marketing and Use of Explosives Precursors was published in the Official Journal of the European Union on 9 February 2013. Government intervention is required to ensure the UK complies with EU law.

The EU Regulation bans the sale of seven chemical precursors (Annex 1 of the regulation) to homemade explosives above specified concentrations from sale to the general public. Member States can decide to allow purchase of these chemicals above the concentrations on presentation of a licence or registration of personal details. Retailers and wholesalers must ensure that any restricted product is labelled as per the guidance to be developed by the European Commission. Retailers must also monitor transactions of these and a further eight chemicals (Annex 2 of the regulation) for suspicious activity at any concentration great enough that the substance is listed as an ingredient on the label.

The aim of the regulation is to make it easier for authorities to detect attempts to purchase high risk explosives precursors, while still allowing purchase for legitimate purposes.

A.2 Groups Affected

Consumers (home users)

Home users will be affected. There are legitimate household or hobby uses for some of the chemicals affected by the policy restrictions. Home users will need to either: apply for a licence, register personal details or find an alternative product, and demonstrate a legitimate purpose when buying the controlled chemicals.

Public retailers

'Public retailers' refers to companies selling chemicals for household or hobby uses. This would typically include: pharmacies, home improvement stores, garden centres and swimming pool supply companies. Public retailers will need to check licences or enter details into a register, identify and report suspicious activity or cease trading certain products.

Business users

Business users will be affected by the need to demonstrate an ongoing business use for the chemicals but will feel the impact will be significantly less than that for home users.

Production supply chain: producers, manufacturers, transporters and wholesalers

Producers, manufacturers, transporters and wholesalers in the UK are expected to be affected by the need to label products within scope of the legislation, the need to report suspicious transactions, thefts and significant losses and by changes in demand for their products.

General public

The general public will be expected to be safer because of the reduced chance of terrorist attacks using homemade explosives.

Central Government

The Home Office and enforcement authorities will administer the licensing scheme and reporting hotline, ensure legal compliance and take action against retailers found to be supplying chemicals in breach of the regulation. There may also be a downstream impact on the CJS and the Ministry of Justice.

A.3 Consultation

Within Government

The policy has previously been subject to scrutiny through the House of Lords European Union Sub-Committee Scrutiny Committee and the Commons European Scrutiny Committee. It has also been the subject of correspondence with the Reducing Regulation Cabinet Committee and the National Security Council (Threats, Hazards, Resilience and Contingencies) Sub-Committee. On an official level it is regularly discussed at the cross-Government Hazardous Sites and Substances Board.

Public Consultation

This impact assessment has been created in advance of public consultation. The consultation documents can be found at: <https://www.gov.uk/government/consultations/precursors-and-poisons-consultations>

Government officials have previously held discussions with home users, the chemical industry, business and retail representatives. To assist with refining this impact assessment, officials plan to seek written comments and hold stakeholder meetings with those within the affected groups.

B. Rationale

Government intervention is necessary to comply with EU law. By supplying members of the general public with chemicals that can be used to manufacture home-made explosives, retailers increase the likelihood of a successful terrorist attack. By requiring a minimum level of care that businesses should take when dealing with the sale of explosives precursors, the policy should increase the likelihood of deterring and/or detecting potential attacks.

C. Objectives

The policy objectives are to:

- Prevent terrorists using explosives precursors in attacks.
- Provide a mechanism to alert authorities to terrorist activity.
- Minimise the burdens on industry and legitimate users.

D. Options

The regulation is split into two annexes. Annex 1 chemicals are those that have a significant history of effective misuse in IEDs across Europe. Annex 2 chemicals are those that have been used in terrorist attacks, but are less easy to make explosives out of and where banning or restricting sales would be disproportionate to the risk posed by the chemical (for example, the sale of ammonium nitrate is controlled by other regulations).

Option 1 is to make no changes (do nothing).

Option 2 is to ban sales of Annex 1 chemicals above the concentration threshold¹ to the general public. Business to business sales would be unaffected by the ban.

¹ To avoid confusion, where “Annex 1 businesses” only applies to those that sell above the concentration thresholds, they are labelled “Annex 1 (above the concentration threshold) businesses.”

Table 1, Annex 1 chemicals

Substance	Concentration threshold²
hydrogen peroxide	12% w/w
nitromethane	30% w/w
nitric acid	3% w/w
potassium chlorate	40% w/w
potassium perchlorate	40% w/w
sodium chlorate	40% w/w
sodium perchlorate	40% w/w

Option 3 is to allow the general public to purchase Annex 1 chemicals above the concentration threshold if they hold a valid licence. Business to business sales would not need to be licensed but business users would need to be prepared to demonstrate an ongoing business need for the substance at the point of sale if asked.

Option 4 is to allow the general public to purchase the Annex 1 chemicals (see Table 2) above the concentration threshold (*Group A*) with a licence and the Annex 1 chemicals (*Group B*) (see Table 3) by entering personal details into a register at the point of sale.

Table 2, Annex 1, Group A chemicals

Substance	Concentration threshold
potassium chlorate	40% w/w
potassium perchlorate	40% w/w
sodium chlorate	40% w/w
sodium perchlorate	40% w/w

Table 3, Annex 1, Group B chemicals

Substance	Concentration threshold
hydrogen peroxide	12% w/w to 35% w/w
nitromethane	30% w/w to 40% w/w
nitric acid	3% w/w to 10% w/w

Above the concentration threshold quoted for Group B chemicals (see Table 3), the sale to the general public would be either a) banned or b) licensed.

Options 2 to 4 also include a requirement for labelling products affected by the restrictions in Annex 1 clearly to indicate that the acquisition, possession, introduction or use of the product is restricted.

Options 2 to 4 include a requirement for suspicious transaction, theft and significant loss reporting. This is necessary for all transactions involving Annex 1 and 2 chemicals **at any concentration** including business to business sales. Guidance on the detail of this will be prepared by the European Commission before 2 September 2014 (the transposition deadline).

Table 4, Annex 2 chemicals

Substance
hexamine
sulphuric acid
acetone
potassium nitrate
sodium nitrate
calcium nitrate
calcium ammonium nitrate
ammonium nitrate

² w/w = weight by weight which means the percentage weight of a substance within the total weight of a mixture. For example, 5 % hydrogen peroxide means 5g of hydrogen peroxide in 100g total mixture of hydrogen peroxide and water.

Imports to a UK business and exports outside of the EU would not be affected. Introduction to an individual home user within the EU would need to comply with the regulation as implemented in that Member State. Any individual that imports, for home use, a) banned Annex 1 chemicals (above the concentration threshold) (Option 2); b) licensed Annex 1 chemicals (above the concentration threshold) without the necessary licence (Options 3 and 4) could face criminal prosecution.

The European Commission will review the effectiveness of the regulation in 2017. This will include consideration of whether to extend the restrictions to business to business transactions.

E. Appraisal (Costs and Benefits)

GENERAL ASSUMPTIONS & DATA

While efforts have been made to understand the costs and benefits to all affected groups, it is necessary to make some assumptions. The Home Office will seek to strengthen and confirm the evidence base through the consultation.

Number of businesses affected

The affected chemicals are known to have a wide range of uses and are therefore sold by a wide range of businesses. The main uses are presented in Tables 5 and 6.

The number of businesses that sell Annex 1 and 2 chemicals has been estimated using ONS data on the number and size of UK local units, sorted by Standard Industrial Classification (SIC) codes. The SIC codes encompass a number of different types of business and assumptions were made as to what proportion of each SIC code would sell Annex 1 and 2 chemicals. The Home Office are aware that these figures are assumption based and will endeavour to strengthen the data using the consultation (see Annex A for further details).

The SIC codes would not enable an accurate estimate of the number of Annex 1 (above the concentration threshold) retailers as these are very niche businesses. Research was carried out to gather initial estimates of the number of retailers (see Table 7).

We have assumed that the SIC code approach includes Annex 1 (above the concentration threshold) retailers but we do not subtract these retailers from the total number due to the different methodologies used to estimate the scale. **The overall impact is therefore likely to be an overestimate.**

Professional users, defined as those that use precursors as part of their business activity, are not expected to be significantly affected by this policy. There will be a negligible cost of providing documentation when purchasing precursors, such as proof of VAT payment. In particular, many businesses would need to do this already in order to purchase a wholesale price.

Table 5, Annex 1 chemicals and their uses.

Substance	Main uses
hydrogen peroxide	<ul style="list-style-type: none"> • Fish tank cleaner. • Wound disinfectant. • Metal etching, cleaning and treatment. • Bleaching agent.
nitromethane	<ul style="list-style-type: none"> • Model engine fuel.
nitric acid	<ul style="list-style-type: none"> • Metal etching.
potassium chlorate	<ul style="list-style-type: none"> • Pyrotechnics. • Herbicide.
potassium perchlorate	<ul style="list-style-type: none"> • Pyrotechnics and rocket propellant.
sodium chlorate	<ul style="list-style-type: none"> • Pyrotechnics. • Herbicide.
sodium perchlorate	<ul style="list-style-type: none"> • Pyrotechnics and rocket propellant.

Table 6, Annex 2 chemicals.

Substance	Main uses
hexamine	<ul style="list-style-type: none"> • Camping fuel tablets
sulphuric acid	<ul style="list-style-type: none"> • Swimming pool cleaner • Drain cleaner
acetone	<ul style="list-style-type: none"> • Household solvent • Nail varnish remover
potassium nitrate	<ul style="list-style-type: none"> • Food preservative • Fertiliser
sodium nitrate	<ul style="list-style-type: none"> • Food preservative • Fertiliser
calcium nitrate	<ul style="list-style-type: none"> • Fertiliser
calcium ammonium nitrate	<ul style="list-style-type: none"> • Fertiliser
ammonium nitrate	<ul style="list-style-type: none"> • Fertiliser (business to business only)

Table 7, Number of business (see Annex A for details).

Business type	Lower	Best	Upper
Annex 1 (above the concentration threshold) retailers		1,900	
Retailers	5,000	8,900	12,900
Wholesalers	1,900	3,400	4,800
Producers	700	1,100	1,500
Pharmacists and KYC retailers ³		30,000	
TOTAL	39,400	45,300	51,100

COSTS OPTIONS 2 to 4

Options 2 to 4 include a requirement for suspicious transaction, theft and significant loss reporting. These activities, and the related costs, that will occur for all options, are outlined below.

³ Know Your Customer recipients (see Section E.8)

Costs to business for Options 2 to 4

The majority of these costs are based on assumptions about the amount of time that might be reasonably taken to perform each activity. The aim is to improve the evidence base underlying these assumptions through the written consultation and stakeholder workshops.

Transition costs

These costs will be incurred in year one.

E.1 Compulsory training and awareness raising of staff members

All businesses that currently sell Annex 1 or Annex 2 chemicals will need to familiarise themselves with the new regulations.

Training is expected to take significantly more time for Annex 1 (above the concentration threshold) retailers who will need to be aware of the restrictions in place for sale to the general public. Other Annex 1 and Annex 2 retailers will need to learn about suspicious transactions and significant loss reporting.

Producers, wholesalers, transporters and pharmacies that sell explosive precursors are expected to have already received some training on suspicious transactions and significant loss reporting. This assumption is based on aggregated information from the Chemical Business Association, the Agricultural Industries Confederation, the Swimming Pool and Allied Traders Association and the Company Chemists Association.

It is assumed that training will take 3.5 hours (half a day) for Annex 1 (above the concentration threshold) retailers, 1 hour for other retailers (excluding pharmacies) and 0.5 hours for other businesses (wholesalers, producers, KYC recipients)⁴.

The total cost is estimated to be **£3.1 to £7.6 million in the first year**. See Annex B, Table B.1 for details.

E.2 Verifying which products are affected

All businesses will need to check which of their products are affected and, for Annex 1 chemicals, whether they are above the concentration threshold. This is in order to label the relevant products appropriately and be aware of the new regulations affecting them.

It is not known how many products will need to be checked by each business therefore an estimate of two administration hours per business has been made. It is assumed that producers would already be aware of what concentrations their products are therefore do not incur a cost.

The total cost is estimated to be **£1.7 to £2.0 million in the first year**. See Annex B, Table B.2 for details.

E.3 Labelling affected products

All businesses will need to label Annex 1 chemicals above the concentration thresholds. It is not known how many products are affected. Based on information from the Chemical Business Association, as long as manufacturers and formulators are made aware of the requirement in good time before the regulation comes into force, the costs of adding a single line of text to a label would be negligible. If labels need to be affixed retrospectively because we have not raised awareness in good time (as manufacturers print labels and cans in bulk in advance of filling them) the cost to business would be estimated at 1p per label.

Awareness of the forthcoming regulation will be raised by using a layered information dissemination method (for example, through business and hobby associations, news articles,

⁴ Know Your Customer recipients (see Section E.8)

stakeholder workshops and via head offices). This will be targeted at retailers, wholesalers, formulators, home users and law enforcement agencies and be conducted as early as possible to allow all affected groups to prepare for the changes.

E.4 Providing information for prospective buyers on restrictions concerning concentration levels

Annex 1 (above the concentration threshold) retailers will need to inform customers that the goods are now banned, licensed or registered (depending on which option is adopted) and potentially point them to alternatives. This is assumed to take 30 administration minutes per week for each business at an estimated cost of £248 per retailer in the first year, with negligible costs from year 2 onwards.⁵ The total cost is therefore **1,900 * £248 = £0.5 million in year one.**

E.5 Internet sales

Online retailers that sell Annex 1 chemicals above the concentration thresholds will need to ensure that they are selling to businesses (Option 2) or the licensed/registered general public users at the recorded address (Options 3 and 4). It is assumed that they can add a field on their online ordering forms to request a license number or request details of registration (Options 3 and 4). The private delivery service will also be requested to ensure that the recipient possesses the necessary documents (for a business, this could be VAT receipts; for a licensed user, this would be the licence). The Home Office will work with online retailers to assess the options and impact of this requirement.

These costs are expected to be low but further evidence will be gathered through the consultation.

Ongoing costs

E.6 Compulsory training and awareness raising of staff members

Businesses will need to ensure that they refresh the training each year for both current and new staff. It is estimated that there will be ongoing annual refresher training of 0.5 hours per staff member. This is estimated to cost **£2.6 to £6.1 million per year from year 2 onwards, at a present value of £22.7 -£52.3 million over 10 years** (see Table 1 C.3 in Annex B).

E.7 Checking that a business is a business

Information from businesses and associations suggests that producers and wholesalers would already have mechanisms in place to check that they are only dealing with businesses. We will issue advice on how a wholesaler can verify an ongoing business need by checking, for example VAT receipts and company numbers. This advice will be voluntary; it will be the responsibility of the business to be content that they are selling to appropriate customers in compliance with the regulation.

Therefore it is retailers that will face the biggest burden as they are likely to sell to professional users (those that use precursors as part of their business activity) and will need to check their documents, which they may not have done previously. This is estimated to take two minutes per transaction.

It is not possible to estimate the number of transactions that will occur. This is due to a lack of evidence on the number of retailers selling to business users, as well as the number of business users. Further information on this will be sought through the consultation.

There will also be an impact on professional users who may be asked for proof, such as VAT number and/or company number. This is expected to be negligible, particularly as wholesalers should already be ensuring that they only sell to businesses.

E.8 Reporting suspicious transactions, thefts or significant losses

⁵ Using the hourly wage of a sales and customer service occupation (Annual Survey of Hourly Earnings, 2012) updated to 2013/14 prices using GDP deflators and 30 per cent on costs from the Standard Cost Model, Better Regulation Framework.

Any business that experiences a suspicious transaction, theft or significant loss, must report this to the anti-terrorism hotline. It is not possible to estimate exactly how many suspicious transactions or significant losses will occur.

'*Know Your Customer*' (KYC) type campaigns, currently run by NaCTSO (National Counter-Terrorism Security Office) have been running from the 1990s and is reported to have informed 30,000 chemists, opticians, dentists and pharmacies regarding voluntary measures around suspicious transaction reporting.

The anti-terrorism hotline reported that in recent months there was an average of four calls per month that made reference to chemicals. Following an internal review of the KYC campaign, evidence suggests that a number of businesses contact the police directly, instead of the anti-terrorism hotline. Assuming that at least as many calls are made to police as to the hotline, and that these calls are from businesses that received *KYC* training reporting suspicious transactions, an estimated one call per 312 businesses would be made per year.⁶ Whilst the estimated number of calls currently made to the anti-terrorism hotline are not necessarily all about suspicious transactions, therefore likely to be an overestimate, it is expected that due to the awareness raising campaign that will follow the implementation of this policy, there will be an initial spike in calls.

With an estimated 7,500 to 19,200 additional businesses affected by these regulations then an estimated 24 to 61 calls would be made each year. This may be a low estimate due to the nature of the businesses that have already received '*KYC*' training and the fact that this policy will raise awareness. Some businesses will already contact the police following a suspicious transaction or significant loss. The cost of suspicious transaction reporting to business is expected to be negligible.

Cost to public sector

Transition costs

E.9 Implementation costs

A member of each police force is expected to put on a half day workshop for affected businesses. This will cost the police an estimated <**£0.1 million in the first year.**⁷

Police will be trained through regular regional meetings.

Ongoing costs

E.10 Monitoring of compliance and enforcement costs

The expectation is that the substantial majority of businesses and the general public will comply with the regulations from the outset. There is an 18 month transitional period (until 2 March 2016) for possession and use by the general public of Annex 1 precursors to allow people to adjust to the new restrictions. However, if a business or a member of the general public is found to be non-compliant, action will be taken which could result in criminal prosecution.

The Home Office will be working with the Ministry of Justice to determine the appropriate offences and punishments required for non-compliance. Further information will be provided in the final impact assessment. If there were additional offences as a result of this policy, there will be a cost to the CJS and the MoJ. The impacts on the MoJ will be considered further during the consultation.

If information is received about non-compliance, enforcement officers will be tasked to conduct a test purchase and take action as appropriate. A small percentage of randomly selected retailers and businesses in each area will also be subject to routine test purchasing. Guidance will be

⁶ 96 (4 calls from the hotline plus 4 calls from the police each month) divided by 30,000.

⁷ Based on 44 forces in Great Britain spending 3.5 hours with a hourly wage of £34.06. Hourly wage taken from Annualised Survey Hours and Earnings (ASHE) and Chartered Institute of Public Finance and Accountancy (CIPFA) data from 2011/12 and updated to 2013/14 prices using GDP deflators.

prepared to assist enforcers in how to conduct the test purchases to ensure they are conducted ethically and within the bounds of the regulation.

For the purposes of this impact assessment we assume that each police force will spend half a day (3.5 hours) each month inspecting premises and carrying out routine test purchasing. The cost is 3.5 (hours) x 44 (number of police forces) x £34.06 (hourly wage). **This will cost the police £0.06 million per year, at a present value of £0.5 million over 10 years.**⁸

E.11 Monitoring and maintaining the suspicious transactions, theft and significant loss reporting systems

Under the new legislation, when a company identifies a suspicious transaction, they are required to report it to the anti-terrorism Hotline. The UK already has a fully operational anti-terrorism hotline, and so no setup costs will occur. Due to the additional number of calls that will follow the implementation of the regulations, extra staff may be hired. We will consult with anti-terrorism hotline about the potential impacts on resourcing.

It is the job of the hotline staff to filter the calls for information to be followed-up by the police. Without this filtering, the legislation might result in a high cost of increased police time following up new leads which may not in fact be useful. It is assumed that new leads provide an overall benefit to the police due to the increase in likelihood that a terrorist plot is disrupted because it is assumed that police officers would run the same level of investigation (that is, using the same number of officers and resources) but now have better information.

COST OF LICENSING SYSTEM (OPTION 3)

Cost to business

E.12 Processing licences and keeping a record of licensed users

Annex 1 (above the concentration threshold) retailers will need to check the licence number for each transaction from the general public. At the end of each day, each retailer will need to call a designated telephone number, or fill in an online form, listing all licence numbers used that day. Processing licences and submitting a report each day is estimated to take 15 minutes per day. With an estimated 1,100 retailers (hobby shops (nitromethane) and swimming pool cleaners (hydrogen peroxide) checking licences, this is estimated to cost £743 per retailer per year, therefore **£0.8 million in total each year, at a present value of £7.0 million over 10 years**⁹¹⁰.

E.13 Deterrence effect of licence

The cost of the licence, including the inconvenience of applying for a licence, may deter individuals from purchasing the above concentration threshold chemicals. Currently there is not enough information to estimate the deterrence effect of a licence. The number of users of these Annex 1 chemicals, the amount they use each year, the price they currently pay and the total cost of alternatives needs to be identified. Due to the limited evidence available, it is expected that hydrogen peroxide users in swimming pool filtration systems may be relatively unresponsive to changes in price when including the cost of the licence, due to the cost of replacing the systems, and their preferences. Other uses, such as nitromethane in model engines, may be more responsive to price as they can use weaker concentrations that are cheaper. The overall impact on business profit is not known and the consultation will be used to strengthen the evidence on the impacts of these changes.

Cost to public sector.

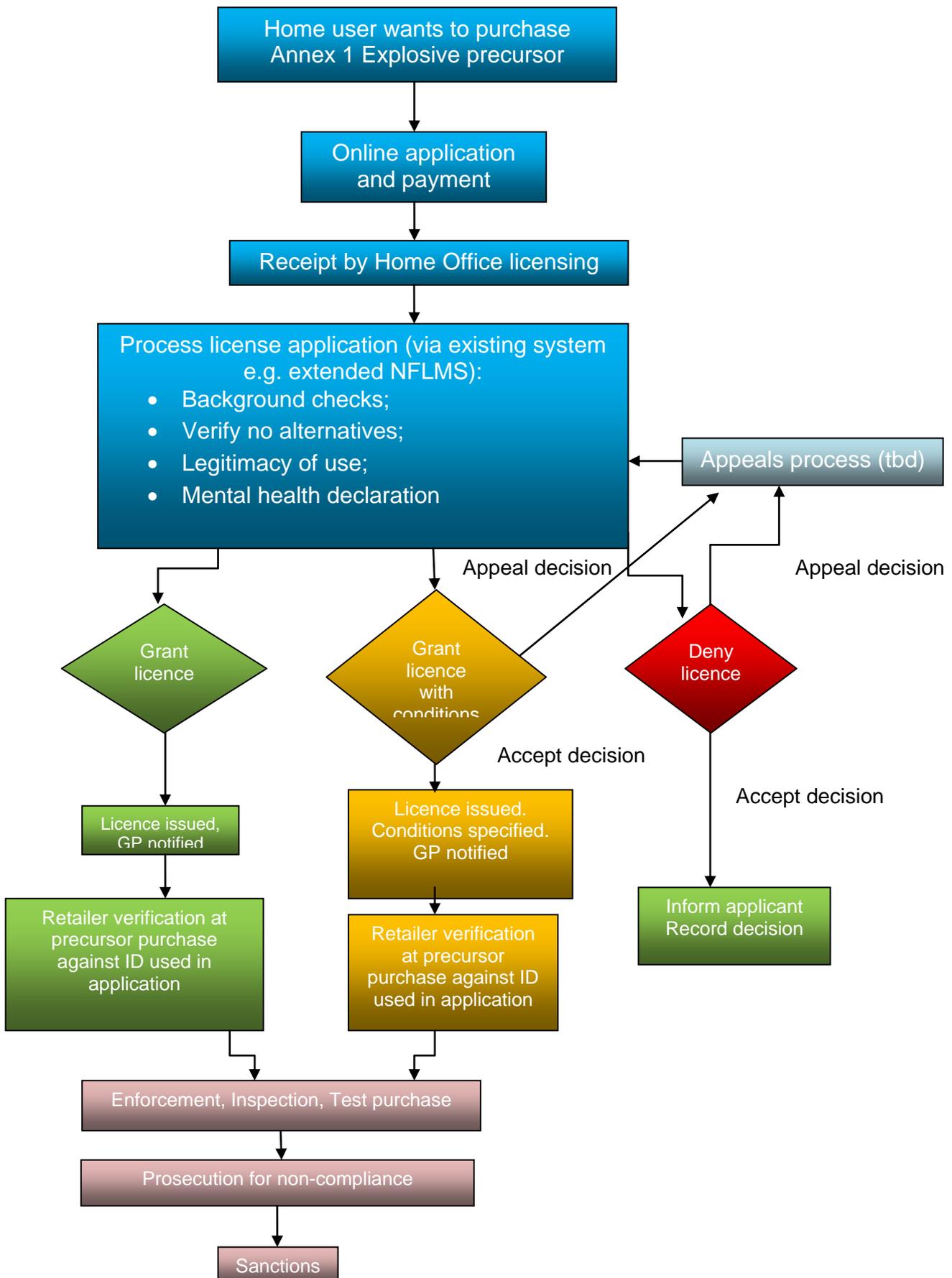
⁸ Based on 44 forces in Great Britain spending 3.5 hours each month with a hourly wage of £34.06. Hourly wage taken from Annualised Survey Hours and Earnings (ASHE) and Chartered Institute of Public Finance and Accountancy (CIPFA) data from 2011/12 and updated to 2013/14 prices using GDP deflators.

⁹ Based on 44 forces in Great Britain spending 3.5 hours each month with a hourly wage of £34.06. Hourly wage taken from Annualised Survey Hours and Earnings (ASHE) and Chartered Institute of Public Finance and Accountancy (CIPFA) data from 2011/12 and updated to 2013/14 prices using GDP deflators.

¹⁰ Using the hourly wage of a sales and customer service occupation (Annual Survey of Hourly Earnings, 2012) updated to 2013/14 prices using GDP deflators and 30 per cent on costs from the Standard Cost Model, Better Regulation Framework.

E.14 Licensing costs

For Options 3 and 4, members of the public (i.e. non-professional consumers) who wish to continue using certain precursors at above-threshold concentrations will have to apply for a precursors licence.



The most significant cost is the set up cost of the licensing system, which is estimated to cost **£0.1 million in Year 1**. This is an early estimate based on discussions with relevant stakeholders and will be developed on throughout the consultation.

The cost of administering the licensing system is estimated to be **£0.1 million** per year, based on the assumption that two members of staff will be hired.¹¹ The exact number of staff required will be determined by the expected number of licences applied for.

The licence fee will be based on full cost-recovery and therefore need only be counted as a single cost, not the cost to home users (as a fee) as well as the cost to the public sector (as a process). However, the exact methodology for calculating the licence fee has yet to be determined and the Home Office will be working with HM Treasury to establish what will be in scope for cost recovery.

If the licence fee were to be set based on the direct cost of administering that licence, the fee is estimated to cost approximately £55¹². This is based on the cost of processing a firearms licence, which takes on average 1 hour 45 minutes of administrative time. In addition, there will be the cost to the individual in having to fill out the licence form. This is estimated to take half an hour, at an estimated cost of £3.¹³

The licence will last for three years, after which it will need to be renewed.

There will also be an inconvenience cost to home users because they will need to plan ahead for purchases of precursor chemicals. This cost has not been quantified, but is expected to be small, since most home use of licensed precursors is by hobbyists, with particular projects or experiments or routine use in mind, rather than for impromptu use. The publicity campaign to inform home users about the change in legislation will help to minimise these costs, by allowing them to plan ahead.

It is expected that the majority of consumer licence applications will come from demand for hydrogen peroxide for swimming pool and hot tub use as well as for nitromethane for competitive modellers.

Home users who have invested in a swimming pool filtration system that requires hydrogen peroxide, or who are allergic to chlorine, are assumed to be willing to pay a high price for the licence. Similarly, competitive modellers who believe nitromethane improves performance are expected to be willing to pay a high price to access the chemical.

The difficulty in estimating the cost of a licence is the interdependence of price and demand. The Home Office will need to set out the fee that will be charged for a licence before knowing what demand there would be at varying fee levels. If there is expected to be high demand for licences, the fee can be set low as the fixed cost of processing licences will be shared over more licences. However, if demand is not as high as expected, the low fee would not cover the fixed costs of processing licences. By gathering evidence through the consultation on the number of individuals that would want to purchase a licence, and the maximum value they would be willing to pay, it should be possible to estimate the number of licences that will be applied for and what an appropriate fee level should be.

If, through the consultation, evidence suggests that there will be low demand for licences, the Home Office will need to consider what type of licensing system is appropriate.

As an illustration, it is estimated that the number of licences that may be applied for using the initial evidence gathered on use of nitromethane and hydrogen peroxide above the concentration

¹¹ Calculated using Home Office estimates of the cost of an Executive Officer and Higher Executive Officer, including the cost of national insurance contributions and pension and 30 per cent on costs from the Standard Cost Model, Better Regulation Framework. No assumptions made regarding a salary increase over time as no assumptions were made regarding a future fee increase.

¹² Based on the cost of an Executive Officer, including on costs, pension, national insurance contributions.

¹³ Source: DfT Guidance, Unit 3.5.6 Values of Time and Operating Costs, Perceived Cost of 'other' non-working time, uprated according to non-working Value of Time growth rates for 2013/14 gives a value of £5.77

threshold. Assuming that 1 to 5 per cent of modellers race competitively, and 0.01 to 2 per cent of swimming pools use hydrogen peroxide, there would be 525 to 9,800 licences applications.

If the licence fee was to include the set-up costs of the IT licensing system, rather than just the cost of administering that licence, and it is assumed that: a) the set up costs are recovered over a 10 year period, b) the renewal fee costs the same as the licence fee and c) that all applications are made in year one. This would lead to a fee of £45 to £615 per licence (assuming additional staffing costs of £0.06m), renewable every three years.¹⁴ It is important to note that the exact methodology for calculating the fee will be based on guidance issued by HM Treasury. The figures above are for illustration only.

The illustration above shows that if the licence fee does include the set-up costs of the IT licensing system, and there is low demand for a licence, there could be a significant impact on home users as they will be forced to purchase alternatives. At this stage it is not possible to quantify the cost of these alternatives or the profit differentials for business.

If the chosen option is to licence Annex 1 (above the concentration threshold) chemicals, advice will be taken from the MoJ to decide on the appropriate appeals process to put in place. Any appeals would have an impact on the CJS, which has not been quantified in this assessment.

For the purposes of this impact assessment the calculation uses the fixed cost of £0.1 million for the licensing system, and the additional staffing costs of £0.1 million per year to estimate the cost incurred. **The licensing system is therefore estimated to cost £0.1 million in transition costs in Year 1 and then £0.1 million per year from year two onwards, at a present value of £0.9 million over 10 years.**

OPTION 1 – Do nothing

If the Commission believes the UK has not complied with the regulation once in force, the UK could face infractions proceedings, meaning it could, eventually, be referred to the European Court of Justice. If the Court rules that the UK has failed to comply with its obligations under EU law, it could face a minimum lump sum fine of £7.9 million. The UK could also face daily fines until it is seen to be compliant.

Without this policy in place, explosive precursors would continue to be available to terrorists (although subject to voluntary measures) who may manufacture IEDs and use these in attempted terrorist attacks on the UK.

OPTION 2 – Ban sales of Annex 1 chemicals to the general public.

COSTS

Costs occur both as transition costs and as annual ongoing costs. The main activities incurring costs for Option 2 are listed below. Further details can be found under “General assumptions” on page 8.

Table 8, Option 2, Costs (1): Costs to business.

Option 2

Transition or Ongoing	Activity	Cost (£m) (per year)		Assumptions (see para:)
		Low	Only or Upper	
<i>Transition</i>	Compulsory training and awareness raising of staff members	3.1	7.6	E.1

¹⁴ Calculated using the minimum pay for a Higher Executive Officer from the Home Office group structure and salaries 2012 plus 30 per cent on costs from the Standard Cost Model, Better Regulation Framework. We use the minimum pay as we assume we are hiring new staff. No assumptions are made regarding a salary increase over time as no assumptions were made regarding a future fee increase.

<i>Transition</i>	Verifying which products are concerned	1.7	2.0	E.2
<i>Transition</i>	Labelling affected products		Negligible	E.3
<i>Transition</i>	Providing information for prospective buyers		0.5	E.4
<i>Transition</i>	Internet sales		Negligible	E.5
<i>Ongoing</i>	Compulsory training and awareness raising of staff members	2.6	6.1	E.6
<i>Ongoing</i>	Checking that a business is a business		Negligible	E.7
<i>Ongoing</i>	Reporting suspicious transactions, thefts or significant losses		Negligible	E.8
Transition cost		5.3	10.0	
Ongoing cost		2.6	6.1	

Note: The best estimate is based on the mid-point of the low and upper costs. Tables may not add due to rounding.

Loss of profit

Option 2 may lead to a loss of profit from banned Annex 1 chemicals previously sold to the general public. In the long term retailers are expected to replace these products with suitable alternatives.

The most significant impact is expected to be on businesses that sell hydrogen peroxide, and related filtration systems, for use in swimming pools and hot-tubs. Due to a lack of evidence of the scale of the hydrogen peroxide market for use in swimming pools and hot tubs, it is not possible to estimate the loss in profit from a ban.

The alternative to nitromethane in model engines is to use a weaker concentration, which is cheaper but some view as not as effective for model racing. It is not known if the stronger nitromethane has a larger profit margin, therefore there may be a loss of profit to nitromethane sellers.

The alternative to hydrogen peroxide is chlorine or bromine, however some filters and/or filtration systems are only compatible with hydrogen peroxide therefore individuals may have to purchase a new system at significant cost, or change filters. The profit margins for hydrogen peroxide, and the associated filtration systems, compared to those for chlorine or bromine, are not known. Therefore it is not possible to estimate the potential loss of profit. There are some users who are allergic to chlorine who may have to pay a professional to clean their pool with hydrogen peroxide, which may benefit businesses. The consultation will seek further evidence on the number of users, and costs associated with these issues.

The total cost to business is therefore estimated to be £5.3 to £10.0 million in transition costs, and £2.6 to £6.1 million per year from year 2 onwards, at a present value of £25.4 to £56.2 million over 10 years. This does not include the loss of profit to businesses from the banned Annex 1 (above the concentration threshold) chemicals.

Table 9, Option 2, Costs (2): Costs to public sector

Transition or Ongoing	Activity	Cost (£m) (per year)	Assumptions (see para:)
<i>Transition</i>	Implementation costs	0.1	E.9
<i>Ongoing</i>	Monitoring of compliance and enforcement costs	0.1	E.10
<i>Ongoing</i>	Monitoring and maintaining the suspicious transactions	Negligible	E.11
Transition cost		0.1	
Ongoing cost		0.1	

Note: The best estimate is based on the mid-point of the low and upper costs. Tables may not add due to rounding.

The total cost to the public sector is estimated to be £0.01 million in transition costs, and £0.06 million per year from year 2 onwards, at a present value of £0.5 million over 10 years.

Costs (3): Costs to individuals

Cost of alternatives to banned Annex 1 chemicals

The banned chemicals are typically more expensive than their alternatives. It is assumed that home users are rational when they decide to purchase these chemicals and therefore place a higher value on these goods.

For example, nitromethane above the concentration threshold costs £10 more per 5 litre bottle compared to nitromethane below the concentration threshold. Users believe a higher concentration improves engine performance.

For hydrogen peroxide for swimming pools, the alternatives such as chlorine are cheaper, but its use could lead to significant costs as their filters would need to be changed, and in some cases, the filtration system too. This will be a significant cost to these home users. Some individuals are allergic to chlorine and therefore may struggle to find a suitable alternative. Without knowing how many home users currently use hydrogen peroxide in their swimming pool, or the cost of replacing the filtration system, we cannot quantify the cost of using alternatives.

Consumer Surplus Loss¹⁵

The demand for hydrogen peroxide above the concentration threshold is expected to be relatively unresponsive to changes in price. This is due to the sunk costs of the filters and filtration system as well as the potential that some individuals are allergic to alternatives. The consumer surplus loss is therefore expected to be significant. Certain users of nitromethane in model engine racing will also be relatively unresponsive to changes in price as they compete and believe nitromethane at higher concentrations is more effective, however this is expected to be a small minority of racers. It is not possible to quantify the loss due to a lack of information on the number of home users affected as well as the shape of their demand curves.

Suspicious transactions, theft and significant losses

The requirement to report suspicious transactions may lead to some genuine customers being refused sale, or having to deal with the police investigating the reasons behind their transaction. Clear guidance will be widely disseminated advising retailers about suspicious behaviours. If followed, the advice should not affect the sale and the police are experienced in dealing with such matters sensitively.

THE NET PRESENT VALUE OF OPTION 2 IS -£41.3 MILLION OVER 10 YEARS. This does not include lost profit due to a ban and the impact on consumers.

¹⁵ The consumer surplus is a measure of welfare gained from consuming a good or service. This benefit, that consumers receive from owning or using the good or service, is measured by the difference between the total amount consumers are willing and able to pay for a good or service and the total amount they actually pay (the market price) for it.

OPTION 3 – Licence Annex 1 chemicals for general public use.

COSTS

Costs occur both as transition costs and as annual ongoing costs. The main activities incurring costs for Option 3 are listed in Table 10. Further details can be found under the 'General assumptions' section.

Table 10, Option 3, Costs (1): Costs to business.

Transition or Ongoing	Activity	Cost (£m) (per year)		Assumptions (see para:)
		Low	Only or Upper	
<i>Transition</i>	Compulsory training and awareness raising of staff members	3.1	7.6	E.1
<i>Transition</i>	Verifying which products are concerned	1.7	2.0	E.2
<i>Transition</i>	Labelling affected products		Negligible	E.3
<i>Transition</i>	Providing information for prospective buyers		0.5	E.4
<i>Transition</i>	Internet sales		Negligible	E.5
<i>Ongoing</i>	Compulsory training and awareness raising of staff members	2.6	6.1	E.6
<i>Ongoing</i>	Checking that a business is a business		Negligible	E.7
<i>Ongoing</i>	Reporting suspicious transactions, thefts or significant losses		Negligible	E.8
<i>Ongoing</i>	Processing licences		0.8	E.12
<i>Ongoing</i>	Deterrence effect of licence		Unknown	E.13
Transition cost		5.3	10.0	
Ongoing cost		3.5	6.9	

Note: The best estimate is based on the mid-point of the low and upper costs. Tables may not add due to rounding.

The total cost to business is estimated to be £5.3 to £10.0m in transition costs, and £3.5 to £6.9 million per year from year 2 onwards, at a present value of £32.4 to £63.3 million over 10 years.

Table 11, Option 3, Costs (2): Costs to public sector

Transition or Ongoing	Activity	Cost (£m) (per year)	Assumptions (see para:)
<i>Transition</i>	Implementation costs	0.0	E.9
<i>Transition</i>	Set up costs of licensing system	0.1	E.14
<i>Ongoing</i>	Monitoring of compliance and enforcement costs	0.1	E.10
<i>Ongoing</i>	Monitoring and maintaining the suspicious transactions	Negligible	E.11
<i>Ongoing</i>	Administering licences	0.1	E.14
Transition cost		0.1	
Ongoing cost		0.2	

Note: The best estimate is based on the mid-point of the low and upper costs. Tables may not add due to rounding.

The total cost to the public sector is estimated to be £0.1 million in transition costs, and £0.2 million per year from year 2 onwards at a present value of £1.5m over 10 years.

Costs (3): Costs to home users

Licence costs

The licence fee is based on recovering the cost of processing the licence, reflected in the licensing costs to the public sector above. Section E.14 outlines the assumptions for this. The cost to home users could be significant, particularly if there is low demand for licences overall and the fixed costs of the licensing system need to be recovered. The exact methodology for calculating the fees has not been confirmed. Views on the appropriate licensing system required and the costs related to this policy will be sought in the consultation.

If appropriate alternatives exist that are cheaper than the licence, home users may purchase these instead.

For example, a weaker concentration of nitromethane can be used in model engines. It is expected that a small minority of users would purchase a licence for important races or competitions. For hydrogen peroxide in swimming pools and hot tubs, there is likely to be relatively higher demand for a licence due to the costs of the alternatives (including replacing the filtration system). The consultation will be used to seek further evidence on this.

The licence will be multi-purpose, a home user can apply for one licence for multiple Annex 1 chemicals, and it will be valid for a maximum of three years, after which it will need to be renewed.

Suspicious transactions, theft and significant losses

The requirement to report suspicious transactions may lead to some genuine customers being refused sale, or having to deal with the police investigating the reasons behind their transaction. Clear guidance will be widely disseminated advising retailers about suspicious behaviours. If followed, the advice should not affect the sale and the police are experienced in dealing with such matters sensitively.

THE NET PRESENT VALUE OF OPTION 3 IS -£49.3 MILLION OVER 10 YEARS. This does not include lost profit due to the deterrent effect and the impact on consumers.

OPTION 4 – Licence a subset of Annex 1 chemicals and register the rest.

COSTS

Costs occur both as transition costs and as annual ongoing costs. The main activities incurring costs for Option 4 are listed in Table 12. Further details can be found under the 'General assumptions' section.

Costs (1): Costs to business

Cost of registration

Retailers of Annex 1 Group B chemicals will need to keep a register of all sales. This is assumed to take 10 minutes each day. Using the total number of Annex 1 retailers (above the concentration threshold), assuming that they all sell at the prescribed concentration limits, the cost is estimated to be **£1.1 million per year**.¹⁶

Ban/licence Group B above the concentration thresholds

The only product that we are aware of that is sold above the concentration limits is nitric acid for jewellery cleaning. This is a very niche activity with limited sales made each year. The expected impact is that individuals will send their jewellery to a professional for cleaning instead. The impact on business is therefore **negligible**.

¹⁶ Using the hourly wage of a sales and customer service occupation (Annual Survey of Hourly Earnings, 2012) updated to 2013/14 prices using GDP deflators and 30 per cent on costs from the Standard Cost Model, Better Regulation Framework..

Table 12, Option 4, Costs (1): Costs to business

Transition or Ongoing	Activity	Cost (£m) (per year)		Assumptions (see para:)
		Low	Only or Upper	
<i>Transition</i>	Compulsory training and awareness raising of staff members	3.1	7.6	E.1
<i>Transition</i>	Verifying which products are concerned	1.7	2.0	E.2
<i>Transition</i>	Labelling affected products		Negligible	E.3
<i>Transition</i>	Providing information for prospective buyers		0.5	E.4
<i>Transition</i>	Internet sales		Negligible	E.5
<i>Ongoing</i>	Compulsory training and awareness raising of staff members	2.6	6.1	E.6
<i>Ongoing</i>	Checking that a business is a business		Negligible	E.7
<i>Ongoing</i>	Reporting suspicious transactions, thefts or significant losses		Negligible	E.8
<i>Ongoing</i>	Registering sales		1.1	See above
Transition cost		5.3	10.0	
Ongoing cost		3.7	7.2	

Note: The best estimate is based on the mid-point of the low and upper costs. Tables may not add due to rounding.

The total cost to business is estimated to be £5.3 to £10.0 million in transition costs, and £3.7 to £7.2 million per year from year 2 onwards, at a present value of £34.8 to £65.7 million over 10 years.

Table 13, Option 4, Costs (2): Costs to public sector

Transition or Ongoing	Activity	Cost (£m) (per year)	Assumptions (see para:)
<i>Transition</i>	Implementation costs	0.0	E.9
<i>Ongoing</i>	Monitoring of compliance and enforcement costs	0.1	E.10
<i>Ongoing</i>	Monitoring and maintaining the suspicious transactions	Negligible	E.11
Transition cost		0.0	
Ongoing cost		0.1	

Note: The best estimate is based on the mid-point of the low and upper costs. Tables may not add due to rounding.

Cost of registration

The enforcement body will be required to routinely inspect registers. It will be at the discretion of each police force how often they carry out these inspections therefore it is not possible to quantify the cost.

Ban or licence Group B chemicals above the concentration thresholds

A licensing system may not be required if there are no significant home uses of chemicals that are above the concentration thresholds in Group B. Nitric acid is known to be used in jewellery making but it is not expected that there will be significant demand for a licence for this purpose. The alternative would be to get a business to clean your jewellery for you. This is not expected to be at a significant cost to home users.

The total cost to the public sector is therefore estimated to be £0.01 million in transition costs, and £0.1 million per year from year 2 onwards at a present value of £0.5 million over 10 years.

Costs (3): Costs to home users

Registration costs

The cost to individuals from the requirement to fill in their personal details into a register at the point of sale is expected to be **negligible**. The regulation is governed by the Data Protection Act [1998] including the general data protection principles of data minimisation, purpose limitation, proportionality and necessity and the requirement to show due respect to the subject's right of access, rectification and deletion.

Licence costs

Nitric acid users for jewellery cleaning are assumed to take their jewellery to a business for cleaning instead of purchasing a licence.

Suspicious transactions, thefts and significant losses

The requirement to report suspicious transactions may lead to some genuine customers being refused sale, or having to deal with the police investigating the reasons behind their transaction. Clear guidance will be widely disseminated advising retailers about suspicious behaviours. If followed, the advice should not affect the sale and the police are experienced in dealing with such matters sensitively.

THE NET PRESENT VALUE OF OPTION 4 IS -£50.8 MILLION OVER 10 YEARS. This does not include the costs of potential licences from Group B chemicals above the concentration threshold.

BENEFITS FOR OPTIONS 2 to 4

The intended benefit of this policy is to reduce the likelihood or impact of a potential terrorist attack. Once the policy is implemented, a terrorist seeking to execute an attack should be disrupted through one of the following mechanisms:

1. They try to obtain explosives precursors either legally or illegally, in both cases drawing the attention of the police or security services. Earlier investigation means that the attack is more likely to be foiled by the police prior to execution.
2. They are deterred from buying the listed explosives precursors, and instead substitute to a less harmful attack type (for example, using less harmful substances to manufacture a less harmful IED).

There are specific benefits from each option. These are outlined below.

Option 2 benefits:

- There would be no risk to the Home Office of issuing a licence to an unsuitable individual.

Option 3 benefits:

- Products are still available to members of the general public.
- Licensing allows checks on individuals.
- There is an opportunity to detect a terrorist in the planning stages of an attack.

Option 4 benefits:

- Products are still available to members of the general public.
- Members of the general public can purchase products containing some above threshold concentrations of hydrogen peroxide, nitromethane and nitric acid without having to plan ahead.
- There is an opportunity to detect a terrorist in the planning stages of an attack.

Distributional Impact

Some of the costs and benefits may fall unevenly on different groups in society. The main cost to consumers falls on a small group of individuals who purchase Annex 1 chemicals above the concentration threshold for home uses. There is limited data available to determine the demographic make-up of these users.

Home and business users may also be affected by the cost of 'false positive' reporting. That is the cost of being denied a licence or transaction, or being regarded with suspicion when the individual's intentions are entirely genuine. This cost may fall more heavily on some groups in society if businesses attempt to profile customers according to prejudices or mis-conceptions about race, religion, ethnicity or other demographic characteristics. It is likely that those perceived to be Muslims may experience a high false-positive cost. The cost of being perceived with suspicion and distrust is difficult to quantify but is likely to cause distress, anxiety and feelings of isolation and injustice in the victims. The awareness raising campaign (mentioned in paragraph E.4) and clear guidance being drafted by the European Commission to be delivered alongside the legislation will ensure that businesses are able to spot suspicious transactions because of the unorthodox behaviour or requests of individuals or groups, rather than using demographic prejudices. However, even with such an education programme in place, there may still be some costs felt by consumers in minority ethnic or faith groups.

The Home Office does not support a policy of profiling by any method, and so any 'false positive' cost associated with licence applications should be distributed equally across all consumers applying for a precursors licence.

ONE-IN-TWO-OUT (OITO)

This is not applicable as EU regulations are out of scope for OITO purposes.

A number of assumptions have been made in this impact assessment. The aim is to strengthen the evidence base behind these assumptions using the consultation. The aim is to fill the main evidence gaps:

- The number of home users and retailers of Annex 1 chemicals above the concentration threshold and the value of this market.
- The number of retailers, wholesalers and producers of all Annex 1 and 2 chemicals.
- Any potential deterrent effect of a licence for home users of Annex 1 chemicals (above the concentration threshold)
- The understanding of suspicious transactions and how easy or difficult it would be to spot one.

F. Risks

OPTIONS 2 to 4

- There is a risk that the scale of use of Annex 1 chemicals (above the concentration threshold) by the general public has been underestimated and could lead to a significant impact on individuals and businesses. The scale of general public use will be explored further through the consultation.
- Option 2 to 4 all rely on businesses being responsible and reporting suspicious transactions or significant losses. There is a risk that businesses will not take this up or that after the initial novelty of the regulations, will forget. There is also a risk that businesses will be fearful of reporting a suspicious transaction to the anti-terrorism hotline due to doubt about the credibility of their suspicion. To mitigate this, on-going awareness raising activities are conducted by Police Counter-Terrorism Security Officers and should refresh the aims of the regulation. In addition, test purchase operations may be conducted on a random basis and will serve as an incentive to make sure staff are aware of the requirements.
- There is a risk that alternative explosive precursors could be used. This will be mitigated by a continuous review of the chemicals on the annexes (1 and 2).

OPTION 2: Ban

- There is a risk of displacing the threat to other methods.
- There is a risk of the policy not meeting the objectives by leading to increased use of the black market and the only effect is a negative impact on industry.

OPTION 3: Licence

- There is a risk of damage to Home Office's reputation if a licence is granted to someone who then misuses the chemicals.

OPTION 4: Licence and register

- There is a risk of damage to the Home Office's reputation if a licence is granted to someone who then misuses the chemicals.
- Registration fails to stop a known subject of interest from purchasing precursors.

These risks will be mitigated by raising awareness through the consultation and inviting home users and businesses to provide their views on the impact each option would have on them.

G. Enforcement

Enforcement will be the responsibility of the Home Office as the licensing authority and the Police. The Government will discuss this further throughout the consultation process.

When enforcing this policy enforcement bodies will need to check compliance. We expect this to be in the form of test purchase exercises where a covert officer would attempt to purchase a banned or restricted product without complying with the required conditions. Test purchases would be targeted based on intelligence, for example, reports of the supplier's non-compliance from members of the general public or a small percentage chosen at random based on the number of businesses. The Government will develop the enforcement regime further once a preferred final option is identified.

Additionally, when conducting a search of domestic premises, if Annex 1 chemicals are found, the police would be expected to check for a valid licence.

Guidance will be drafted by the Home Office for enforcement agencies. The European Commission will draft guidance for businesses on: identifying and reporting suspicious transactions, thefts and significant losses and labelling requirements.

Where possible licensing applications and checks will use existing systems.

H. Summary and Recommendations

The table below outlines the costs and benefits of the proposed changes.

Option	Costs	Benefits
2	Cost to business of familiarisation, training, verifying products affected, informing customers. Cost to public sector of enforcement and training. £41.3m (PV over 10 years)	
	Cost to business from loss of profit from banned goods, cost to consumers from banned goods. (not quantified)	Benefits to society of the reduced risk or impact of a terrorist attack by Improvised Explosive Device (IED). (not quantified)

3	Cost to business of familiarisation, training, verifying products affected, informing customers, and processing licences. Cost to public sector of enforcement and training and licensing system. £49.3m (PV over 10 years)	
	Cost to business from loss of profit from licensed goods, cost to consumers from deterrence effect of licensed goods. (not quantified)	Benefits to society of the reduced risk or impact of a terrorist attack by Improvised Explosive Device (IED). (not quantified)
4	Cost to business of familiarisation, training, verifying products affected, informing customers, and registering transactions. Cost to public sector of enforcement and training. £50.8m (PV over 10 years)	
	Cost to business from loss of profit from licensed goods, cost to consumers from deterrence effect of licensed goods. (not quantified)	Benefits to society of the reduced risk or impact of a terrorist attack by Improvised Explosive Device (IED). (not quantified)

Based on the analysis in sections E and F and given the three stated policy objectives, **option 3 is the preferred option**. Licensing allows legitimate users to purchase Annex 1 chemicals whilst minimising burdens on retailers and offering an opportunity to check the suitability of the licence applicant and their intended uses. Option 2 would have the greatest impact on legitimate users of Annex 1 chemicals by prohibiting general public purchase. Option 4 does not provide effective protection against terrorists using Annex 1 chemicals in terrorist attacks and places a greater burden on retailers by making them keep a register in addition to checking licences. The overall costs may not reflect this as there are a number of aspects that are not quantifiable such as the loss of profit and benefits.

I. Implementation

The Government plans to implement these changes on 2 September 2014, the transposition deadline for the EU regulation. It will be introduced via secondary legislation under the European Communities Act 1972.

The delivery of the Marketing and Use of Explosive Precursors Regulation will be led by the Home Office.

J. Monitoring and Evaluation

There will be a European Commission review of the regulation in 2017.

Baseline data on: the number of calls per month to the anti-terrorist hotline relating to suspicious transactions and the number that lead to further investigation and action are available. It will be possible to measure the difference following implementation of the policy.

Once a final preferred option has been identified, a full evaluation plan will be designed that can be implemented in 2017.

K. Feedback

In order to accurately assess the impact of the legislation the Government will seek views from those who will be most affected by the policy: the home users, retailers and enforcement authorities.

This will be achieved by regular stakeholder meetings and monitoring public correspondence relating to the policy.

ANNEX A

Standard Industrial Classification (SIC) codes from the ONS were used to estimate the number of retailers, wholesalers and producers that would sell Annex 1 or 2 chemicals (see A.3).¹⁷ Pharmacies were excluded from this methodology to avoid double counting with the number of recipients of *Know Your Customer*. Assumptions were made as to the scale of Annex 1 and/or 2 use in each category (% of SIC code that sell Annex 1 and/or 2 chemicals), based on Table A.1 below.

Table A.1, Level of precursor use.

Level of precursor use	Minimum (%)	Maximum (%)
None	0	0
Low	1	10
Medium	40	60
High	75	95

The SIC codes cover a wide range of businesses and some business types will sell both Annex 1 and 2 chemicals. It has not been possible to entirely separate out businesses by Annex 1 and 2 as some SIC codes cover a wide range of business types and some businesses will sell both, (those in **bold** cover both Annex 1 and 2 chemicals, see Table A.3).

These figures should be treated with caution as they are based on assumptions on the scale of explosive precursor use in each industry classification. Further evidence to strengthen these assumptions will be gathered through the consultation.

Table A.2, Estimated number of business affected (all concentrations)

Business type	Lower	Upper
Retailers	5,000	12,900
Wholesalers	1,900	4,800
Producers	700	1,500
TOTAL	7,500	19,200

¹⁷ UK Business: Activity, Size and Location, 2012, Table A3.1 United Kingdom- Number of Local Units in VAT and/or PAYE based enterprises in 2012.

Table A.3. Number of retail, wholesale and producer businesses affected.

Annex 1/2	SIC codes	Retail, SIC code description	Estimated impact (%)		Estimated No.	
Annex 1	4719	Other retail sale in non-specialised stores	1	10	140	1,400
	4730	Retail sale of automotive fuel in specialised stores	1	10	50	500
	4774	Retail sale of medical and orthopaedic goods in specialised stores	1	10	20	160
	4775	Retail sale of cosmetic and toilet articles in specialised stores	40	60	1,400	2,100
	4778	Other retail sale of new goods in specialised stores	1	10	290	2,800
	4791	Retail sale via mail order houses or via Internet	1	10	140	1,400
Annex2	4776	Retail sale of flowers, plants, seeds, fertilisers, pet animals and pet food in specialised stores	40	60	2,900	4,300
	4789	Retail sale via stalls and markets of other goods	1	10	10	80
Total					5,000	12,900

Annex 1/2	SIC codes	Wholesale, SIC code description	Estimated impact (%)		Estimated No.	
Annex 1	4618	Agents specialised in the sale of other particular products	1	10	50	490
	4619	Agents involved in the sale of a variety of goods	1	10	20	180
	4644	Wholesale of china and glassware and cleaning materials	1	10	10	60
	4646	Wholesale of pharmaceutical goods	1	10	30	250
	4649	Wholesale of other household goods	1	10	60	590
	4671	Wholesale of solid, liquid and gaseous fuels and related products	1	10	20	190
	4675	Wholesale of chemical products	75	95	1,300	1,660
Annex 2		Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods	40	60	300	480
	4611					
	4615	Agents involved in the sale of furniture, household goods, hardware and ironmongery	1	10	10	130
	4618	Agents specialised in the sale of other particular products	1	10	50	490
	4645	Wholesale of perfume and cosmetics	1	10	30	320
Total					1,900	4,800

Table A.3. Number of retail, wholesale and producer businesses affected (continued).

Annex 1/2	SIC codes	Producers, SIC code description	Estimated impact (%)		Estimated No.	
Annex 1	2013	Manufacture of other inorganic basic chemicals	75	95	90	110
	2020	Manufacture of pesticides and other agrochemical products	75	95	50	60
	2051	Manufacture of explosives	75	95	20	20
	2059	Manufacture of other chemical products n.e.c.	40	60	210	320
	2110	Manufacture of basic pharmaceutical products	1	10	<10	20
	2399	Manufacture of other non-metallic mineral products n.e.c.	1	10	<10	20
	3299	Other manufacturing n.e.c.	1	10	50	540
Annex 2	2015	Manufacture of fertilisers and nitrogen compounds	75	95	80	100
	2041	Manufacture of soap and detergents, cleaning and polishing preparations	40	60	150	230
	2042	Manufacture of perfumes and toilet preparations	1	10	<10	40
Total					700	1,500

ANNEX B

Table B.1. Familiarisation and training costs (year 1).

	Hours and No. staff per business		Number		Hourly wage,£ (including on costs)	Cost (£m)	
			(low)	(high)		(low)	(high)
	3 hours per staff per business:						
Annex 1 (above the conc. threshold) retailers	6	13	1900	1900	9.52 ¹	313,8 00	694,800
	1 hour per staff per business:						
Retailers	6	13	4,955	12,918	9.52	272,8 00	1,574,6 00
	0.5 hours per staff per business:						
Wholesalers	6	13	1,900	4,849	9.52	52,90 0	296,800
Producers	17	32	666	1,464	12.50 ²	72,80 0	295,100
Pharmacies and other KYC recipients	6	12		30,000	26.88 ³	2,372, 000	4,698,8 00
TOTAL			39,400	51,100		3,084, 300	7,560,3 00

Table B.2 Identifying affected products (year 1).

	Number		Hourly wage, £ (including on costs)	Cost (£m)	
	(low)	(high)		(low)	(high)
	2 hours per staff per business:				
Retailers	5,000	12,900	9.52	94,400	246,000
Wholesalers	1,900	4,800	9.52	36,200	92,400
Producers			N/A		
Pharmacies and other KYC recipients		30,000	26.88	1,612, 600	1,612,6 00
TOTAL	36,900	47,800		1,743, 100	1,951,0 00

Table 1 Training costs (years 2 to 10)

	Hours and No. staff per	Number	Hourly wage,£	Cost (£m)
--	----------------------------	--------	------------------	-----------

¹ Hourly wage based on ASHE Median Gross Hourly Wage 2012 (uprated to 2013/14 prices) for Sales and customer service occupations, including 30 per cent on costs from the Standard Cost Model, Better Regulation Framework.

² Hourly wage based on ASHE Median Gross Hourly Wage 2012 (uprated to 2013/14 prices) for Process, Plant and Machine Operatives Staff, including 30 per cent on costs from the Standard Cost Model, Better Regulation Framework.

³ Hourly wage based on ASHE Median Gross Hourly Wage 2012 (uprated to 2013/14 prices) for Pharmacists, including 30 per cent on costs from the Standard Cost Model, Better Regulation Framework.

	business				(including on costs)		
			(low)	(high)			(low)
	0.5 hour per staff per business:						
Retailers	6	13	5,000	12,900	9.52	136,400	787,300
Wholesalers	6	13	1,900	4,800	9.52	52,900	296,900
Producers	17	32	700	1,500	12.50	72,800	295,100
Pharmacies and other KYC recipients	6	12		30,000	26.88	2,372,000	4,698,800
TOTAL			37,500	49,200		2,634,100	6,078,100

ISBN - 978-1-78246-249-1