### Summary: Intervention & Options

<table>
<thead>
<tr>
<th>Department /Agency: Food Standards Agency</th>
<th>Title: Impact Assessment of the Revised Salt Reduction Targets</th>
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</thead>
<tbody>
<tr>
<td>Stage: Final</td>
<td>Version: 1</td>
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**Related Publications:**
Available to view or download at: http://www.

**Contact for enquiries:**
Telephone:

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

UK consumers are eating too much salt (around 8.6g/day) compared to public health recommendations (no more than 6g a day, and less for children), and this is a significant risk factor for developing high blood pressure. High blood pressure increases the risk of suffering from the key components of cardiovascular disease (CVD); coronary heart disease and stroke. More than one in three deaths (35%) are attributable to CVD each year. CVD has significant personal and economic costs – estimated at £30.7 billion in 2006 (health care costs, informal care costs and productivity losses). Around 75% of the salt we eat is already in everyday foods that we buy and the average diet contains more than 6g of salt. Therefore, government intervention is necessary to coordinate the reformulation of food to lower levels of salt before reaching consumers’ plates.

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### What are the policy objectives and the intended effects?

To review the FSA’s voluntary salt target levels to ensure continued progress towards achieving the Agency’s strategic plan target to reduce the average population intake of salt to no more than 6g per day for adults and less for children.

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### What policy options have been considered? Please justify any preferred option.

1. Do nothing
2. Revise existing salt targets – This would be the preferred option for the Food Standards Agency as it would allow for the continued reduction of salt levels in line with government targets without unduly burdening industry through regulation and associated costs.
3. Government to legislate to require the food industry to reduce the levels of salt in food to specified levels.

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### When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

The FSA will be running a rolling two year review programme which will make periodic assessments of the salt levels in target foods; the next review of salt levels in food will take place in 2010. Urinary sodium analysis to monitor reductions in population intakes will form part of the rolling programme of National Diet and Nutrition Surveys that commenced in April 2008 and will enable us to compare progress with data we have from surveys undertaken in 2000/1, 2005/6 and 2008 at the end of 2010.

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### Ministerial/CEO Sign-off

For SELECT STAGE Impact Assessments:

_I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) the benefits justify the costs._

Signed by the Food Standards Agency Chair:

[Signature]

Date: 25/03/09

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1 The Agency’s Annual Report of the Chief Scientist 2006/7 identifies high blood pressure as a contributory factor in the estimated 160k deaths from stroke and CHD each year (2005). The main components of CVD are CHD and stroke

2 [www.heartstats.org.uk](http://www.heartstats.org.uk)
### COSTS

#### ANNUAL COSTS

| Description and scale of key monetised costs by ‘main affected groups’
| Manufacturers who commit to the salt targets and who do not have other strategic drivers to reduce salt, will face reformulation and re-labelling costs but will also gain from non monetised benefits (see below). The range of costs associated with salt reformulation are outlined in detail in Annex 1. It would be misleading to calculate an overall cost to industry, given the number of assumptions required. (Annex 1) |

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<thead>
<tr>
<th>Costs item</th>
<th>Description</th>
<th>Average Annual Cost (excluding one-off)</th>
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<tr>
<td>One-off (Transition)</td>
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<tr>
<td>5</td>
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<td>£</td>
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**Total Cost (PV)**  £ N/K

*Other key non-monetised costs by ‘main affected groups’*
The Agency will need to purchase data on salt levels in food to monitor industry progress. The Agency is in the process of putting the contract to collect and provide this information out to tender.

### BENEFITS

#### ANNUAL BENEFITS

| Description and scale of key monetised benefits by ‘main affected groups’
| It is not possible to quantify the exact benefit accruing from the targets alone, as this is dependent upon a number of key assumptions such as uptake by industry, technological progress etc and the role of FSA voluntary salt targets vis a vis other drivers. An illustrative figure (based on the knowledge of what has been achieved to date and what may be achievable within the policy period) is included in the main IA and quantifies the health benefits. |

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<tr>
<th>Benefits item</th>
<th>Description</th>
<th>Average Annual Benefit (excluding one-off)</th>
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<td>£</td>
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**Total Benefit (PV)**  £ N/K

*Other key non-monetised benefits by ‘main affected groups’*
There may be reputational benefits for retailers, manufacturers, and companies in the catering sector who demonstrate corporate social responsibility by committing to the salt targets from NGOs, consumer groups and the media. It is the consideration of these benefits and the associated costs (above) that drive the internal company decision to commit to the salt targets.

### Key Assumptions/Sensitivities/Risks

This analysis assumes an equivalent uptake by industry of the voluntary salt reduction targets following proposed revisions. Economic pressures that may divert industry resource away from product reformulation is a potential risk not accounted for in this analysis.

### Price Base

| Year | Time Period | Net Benefit Range (NPV) | NET BENEFIT (NPV Best estimate) |
| Year | Years 5 | £ n/k see above | £ n/k see above |
| n/a | 5 | | |

### What is the geographic coverage of the policy/option?

UK

### On what date will the policy be implemented?

1st April 2009

### Which organisation(s) will enforce the policy?

N/A

### What is the total annual cost of enforcement for these organisations?

£ N/A

### Does enforcement comply with Hampton principles?

YES

### Will implementation go beyond minimum EU requirements?

N/A

### What is the value of the proposed offsetting measure per year?

£ N/A

### What is the value of changes in greenhouse gas emissions?

£ N/A

### Will the proposal have a significant impact on competition?

No (see Annex)

### Annual cost (££) per organisation (excluding one-off)

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<tr>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
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<td>N/A</td>
<td>N/A</td>
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### Impact on Admin Burdens Baseline (2005 Prices)

| Increase of | Decrease of | Net Impact |
| £ | £ | £ |

### Key:

Annual costs and benefits: Constant (Net) Present
Reason for Intervention

What is the risk to public health/standards that is being addressed? This should expand the information given in the top box on page 1.

1. The Government’s objective is to reduce the incidence of costly chronic diseases such as cardio-vascular disease through improvements in dietary health. The Food Standards Agency (FSA) has undertaken a number of salt awareness campaigns and improved food labelling through the introduction of voluntary Front of Pack signposting schemes. These efforts help consumers to make informed choices and increase the demand for reformulated lower salt products. However, there is scope to coordinate industry’s activity through voluntary salt reduction targets. The voluntary targets are consistent with a number of key principles of good regulation\(^3\) provide certainty for firms by setting out the outcomes the FSA would like to see in the future, provide flexibility for firms in how they achieve those benchmarks and provide a means for co-ordinating reformulation activity across industry.

2. The Agency has estimated that around 75% of salt in the diet is already in the food that we buy such as bread, cereals, cheese, meat products, ready meals, soups, sauces, baked beans and savoury snacks. Therefore, reformulation activity has the potential to deliver significant reductions in consumers intakes.

3. The first stage of voluntary salt reduction targets were published in March 2006. At that time, it was acknowledged that progress would need to be reviewed in 2008 to ensure continued progress towards the 6g target. The revised salt targets therefore meet existing Government commitments made in 2006 to review progress on salt reduction and take into consideration what further action is necessary to maintain progress towards our 6g intake target.

4. We intend to continue with the voluntary approach which has so far proved successful. To date reductions in salt levels of between 25% and 55% have been achieved in some food products that contribute most salt to our diet such as bread, breakfast cereals, soups and sauces, some processed cheese products and savoury snacks. A reduction in intakes from 9.5g in 2000/01 to 8.6g in 2008 has already been seen since the start of the FSA’s salt initiative\(^4\).

Intended effect

What is the goal of the intervention? This should expand the information given in the second box on page 1.

5. To revise and update the voluntary salt reduction targets for the categories of manufactured-foods first published in March 2006, and ensure targets are set that will maintain progress in reducing consumers’ salt intakes towards our 6g intake goal. The targets may be used by both UK industry and Government to measure progress in reducing the quantity of salt present in these foods.

Background

\(^4\) www.food.gov.uk/media/pdfs/08sodiumreport.pdf
History briefly outlining the context of the policy, where it has developed from (addressing new risks, reviewing policy, European initiative) and who is affected by it.

6. The current average daily salt intake for UK adults is 8.6g, whereas public health recommendations are that intakes should not be more than 6g a day. Eating too much salt is a significant risk factor in developing high blood pressure...High blood pressure is an important contributory factor to the estimated 150,000 deaths in the UK from coronary heart disease (CHD) and stroke each year (2006). People with high blood pressure are three times more likely to develop heart disease or have a stroke than people with normal blood pressure and are twice as likely to die from these diseases. It is estimated that around 30% of all adults in England have high blood pressure.

7. A study funded by the British Heart Foundation and the European Heart Network estimated that the cost of cardiovascular disease to the UK economy was £30.7 billion in 2006 (via health care costs, informal care costs and productivity losses).

8. The FSA’s Strategic Plan to 2010 sets out the UK wide objective to work with health departments / directorates and stakeholders to reduce average UK intakes of salt. The UK’s individual country nutrition action plans also recommend that the Government work with industry to reduce the amount of salt consumed in the UK and/or to more generally develop and promote initiatives with the food industry to improve healthy eating.

9. The FSA is responsible for leading work to deliver salt reductions in foods. DH, DEFRA, the Department for Business, Enterprise and Regulatory Reform (BERR) and their equivalents in the devolved administrations will also have an interest.

Progress so far

10. Many companies involved in the manufacture and supply of processed foods (which, in this context, includes foods manufactured for retail sale and those prepared by catering organisations) already have in place a programme of salt reduction and many have met the current targets in a number of categories. As a result good progress has already been made in achieving reductions in the salt content of many processed foods.

11. The urinary analysis results for fieldwork undertaken between January and May 2008 shows that overall action on salt has achieved a further reduction of 0.9g when compared to the 2001 baseline intake of 9.5g. Therefore, our best estimate is that the average population intake is now at 8.6g.

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5 Food Standards Agency. National Diet and Nutrition Survey: An assessment of dietary sodium levels among adults (aged 19-64) in the UK general population in, based on analysis of dietary sodium in 24 hour urine samples.
6 Committee on Medical Aspects of Food and Nutrition Policy (COMA) and recently endorsed by its successor, the Scientific Advisory Committee on Nutrition (SACN)
10 Food Standards Agency (2007), Strategic Plan to 2010 – Putting Consumers First. The Strategic Plan sets a target for the FSA to work with health departments and other stakeholders to reduce the average salt intake of UK adults and children to within recommended levels by 2010.
11 In England, the Department of Health White Paper Choosing Health: Making healthier choices easier (2004) and its Choosing a Better Diet: a food and health action plan (2005). In Scotland, the Scottish Government’s Healthy Eating, Active living: An action plan to improve diet, increased physical activity and tackle obesity (2008-2011). In Wales, the Food Standards Agency and Welsh Assembly Government’s Food and Well Being: Reducing inequalities through a nutrition strategy for Wales (2003). In Northern Ireland, work is progressing to develop a Department of Health’s food and nutrition strategy.
**Going forward**

12. The urinary sodium analysis results show that whilst good progress has been made there is still much to do if we are to meet the 6g target. The Agency is taking work forward on a number of fronts:

- A further phase of the public awareness campaign will be run in 2009/10
- Work with the catering sector has increased and we will continue to build on early successes.\(^{12}\)
- Work in both the catering and retail sectors to identify the most useful type of nutrition labelling to help consumers make informed choices.
- Leading the World Health Organisation’s Salt Action Network, working with the European Commission and directly with other countries administrations to stimulate salt reduction across the world.

13. At the time the initial voluntary salt reduction targets were set in 2006 the Agency committed to a review in 2008 to consider progress made, the potential for setting further targets and to explore any technical difficulties identified.

14. From January - March 2008 the Agency held a series of meetings with sectors of industry covered by the targets to review progress. In addition a number of one to one meetings were held. At the sector specific meetings industry were asked to report on progress on salt reduction to date, any significant challenges experienced, and what further levels of salt reduction could be achieved.

15. The review confirmed that that although there has been considerable success in some sectors, with some companies exceeding the targets, others still have a long way to go. More still needs to be done, in addition to the other streams of work that are on going (consumer awareness, work with caterers, activity at European level), to reduce the salt that is in the everyday foods that we buy if the recommended intake target of not more than 6g of salt per day is to be met.

**Options**

*A brief summary of the different ways the policy could be taken forward in order to achieve the intended goal. This should expand the information given in the third box on page 1.*

16. We have identified three broad options for taking forward work on salt reduction in food products through salt reduction targets:

- Do nothing – No further revision of the salt targets.
- Revise voluntary salt reduction target levels for the range of food categories where further reductions are possible by 2010 and set revised targets to be achieved by 2012. This will be coupled with an ongoing drive to encourage industry to lower the salt content across all foods.
- Government to legislate to require the food industry to reduce the levels of salt in food to specified levels.

**The “do nothing” option**

17. This would mean taking no more action than we are already taking with industry to secure changes to the salt content of foods. Reductions in the salt content of foods would continue in line with current targets and consumer trends. The current review has shown that the targets have provided a stimulus for salt reduction and more importantly

gradually reduced levels across processed foods. This is important to ensure consumers’ palates change and adjust to lower salt foods. It also reduces scope for certain firms to continue with relatively high salt versions of products. However, without further action, reductions in salt levels could slow down and progress may become fragmented across categories. This would not deliver the reductions required to achieve a population average target of 6g per person per day.

The “revise targets for 2010 and 2012” option (please see Annex B for the detailed proposed revisions)

18. We acknowledge that the revised targets will be challenging and wish to emphasise that they should be viewed as ‘stretching’ targets given the progress already made in salt reduction. To date, achievement of the original salt targets has largely, but not entirely, been due to incremental reductions in added salt. The revised targets require more fundamental changes to the manufacturing processes/recipes and their achievement in some categories may be subject to technological advances and alternative business methods. It will be important to review progress on a regular basis and to support industry in their efforts to reduce salt and sodium from other sources. Detail on the role of salt and sodium in manufactured food can be found in Annex 1.

Revised targets for 2010

19. This option would involve the revision of the salt reduction target levels for a limited range of foods (18% of categories) in areas where there have been substantial achievements and there is clearly scope to go further by 2010. The product categories for which stricter salt targets are proposed for 2010 are: bacon; ham & other cured meats; cooked sausages & sausage meat; meat pies; other processed cheeses; margarines & other spreads; extruded snacks; pelleted snacks; salt & vinegar snacks; cakes; tomato ketchup; mayonnaise (reduced fat/calories); and instant mashed potatoes.

Stricter targets for 2012

20. In addition new and stricter salt target levels for all product categories have been set for 2012 with some minor exceptions.

Revision of categories

21. Additionally, some redefining of food categories to better suit food products on the market and facilitate improved user understanding has been undertaken. The following categories are affected: ham/other cured meats; cooked uncured meats; frankfurters; morning goods; cheddar cheese: cottage cheese; ready meals; soups; pizzas; pastries; cakes; fruit pies; thick pastes (formally part of Pesto and other thick sauces); sweet biscuits; pasta excluding ready meals; all other processed puddings; other canned fish; canned vegetables; and processed vegetable-based products (now meat alternatives).

Rolling review

22. A rolling review of progress and future target adjustments on a biennial basis is also planned to ensure continued and steady progress on salt reduction, with the next review taking place in 2010. The purpose of such reviews would be to review the scope for action in light of achievements, technological barriers and developments, and to continue to provide challenging targets that will act as a stimulus for salt reduction to maintain progress towards the 6g target.
23. Any revised targets and any other further action identified would continue to be informed by discussions with all stakeholders including industry, NGOs, retailers, caterers, enforcement bodies and OGDs including DH, DEFRA, and BERR.

24. A Commitments Table will also help to promote salt reduction. This provides a dual function as it publicly demonstrates what industry consider achievable over the forthcoming year and also provides businesses with public recognition of their achievements.

The “legislation” option

25. Under this option, the Government would legislate to require the food industry to reduce the salt content of specified food categories to within set levels within a set time frame. We have disregarded this option at present because of the associated costs including: reformulating outside of normal reformulation cycles, sourcing alternative ingredients and re-labelling of reformulated products. There are also significant costs for Government and enforcement authorities to implement any new legislative measures, monitor levels of salt in food to aid enforcement, and issue penalties for non-compliance. In addition it is far less flexible and effective than voluntary measures and if it becomes necessary to amend the targets to maintain progress, further legislation would be required.

26. Legislation on food composition is partially harmonised and an area of EU Commission competence, consequently UK legislation would need to be agreed at European level. As good progress is already been made through voluntary means we consider this option to be unnecessary at this time. Any legislative measures could be opposed by businesses or the European Commission which is co-ordinating voluntary action among Member States via the High Level Group on Nutrition and Physical Activity.

Costs and benefits of options

Sectors and groups affected

27. In our opinion, the following groups may be affected: food manufacturers and catering businesses present in the UK; and UK consumers.

Economic impacts

28. The FSA recognises that industry has invested significant resources in the changes it has made to levels of salt in food, and welcomes the fact that they are working positively with us on this voluntary initiative with a view to meeting the 6g intake target.

Industry costs

29. Options 1 (do nothing) whilst not involving any additional costs to business or the public sector would, as explained above, not deliver the full public health benefits that can be delivered by option 2.

30. The FSA considers that under Option 2 (revise targets for 2010 and 2012) any actions taken by industry to reduce salt levels in foods to meet these new targets are voluntarily undertaken (to protect the dietary health of consumers). The objective of the revised targets is intended to focus existing industry activity to reduce salt levels in key processed-food groups, encourage consistency within sectors and enable progress to be assessed more effectively.

31. In the previous Impact Assessment, it was argued that because the salt targets were voluntary, reformulating to lower salt products constituted a business decision and
industry would not incur any costs. Whilst the targets remain voluntary, the new round of salt targets will require greater investment in some areas than the initial reformulations. To reflect this, the agency has outlined where those costs will occur (Annex 1). However, we have refrained from aggregating the costs for the reasons outlined below.

Why costs were not aggregated

32. There are a number of drivers apart from the FSA’s salt targets which prioritise reformulation activities for firms. As these are internal strategic drivers, it is very difficult to disentangle the role of the FSA voluntary salt targets from other strategic drivers that are individual to each company. Further detail on this can be found in Annex 1.

33. Through workshops with industry, we have been able to identify the various costs associated with salt reformulation so far and in particular show the variability of costs across different manufacturers and different product groups (Annex 1). While we have elicited cost information from manufacturers, there are number of reasons why it would be inappropriate to aggregate and estimate the total cost incurred as a result of the FSA Salt Targets including:
   - difficulty in disentangling the effects of the FSA Salt Targets from other strategic drivers of salt reformulation;
   - small sample size of cost information and the likely bias associated with this because of both the limited no. of companies and the limited types of products covered;
   - majority of the cost information pertains to costs associated with salt reformulation thus far, rather than meeting future targets which may involve new and different types of costs;
   - voluntary nature of the targets – the uptake of the targets and therefore the costs incurred by industry is not known at present; and
   - degree of work necessary to meet the targets is not known at present e.g. for example, the number of reformulations and associated consumer acceptance testing cannot be accurately predicted at present.

Case study information

34. We have, however, through a number of industry workshops outlined in detail (in Annex 1) the:
   - process by which the FSA Salt Targets function vis a vis other strategic drivers;
   - costs associated with salt reformulation so far for a small sample of anonymous products;
   - role of salt in food; and
   - possible cost drivers associated with the revised FSA Salt Targets.

35. In addition to business costs such as reformulation and re-labelling costs, it is acknowledged that firms who commit to the salt targets may incur minimal reporting and reading costs.

Benefits (Public Health)

36. It is not possible to accurately quantify the exact benefit that will be accrued, as this is dependent upon a wide range of factors including: the level of voluntary uptake of the targets by industry; technological progress; the effectiveness of consumer awareness activities to promote behavioural changes (campaigns) and promote improved choices through use of front of pack labelling; and changes over time of population consumption patterns.
37. The Agency is also aware that industry’s existing reformulation commitments mean that significant progress towards these revised targets will only begin to take place from 2009/10. However to illustrate the potential benefits of reductions in salt intakes we have estimated the attainable health benefits afforded by a half of a gram average reduction in salt intakes. These benefits are based on the level of reductions that have been achieved to date.

38. To estimate the public health benefits of salt intake reductions we referred to the existing analysis laid out in Ofcom’s RIA pertaining to restricting broadcast advertising to children. http://www.ofcom.org.uk/consult/condocs/foodads_new/ia.pdf

39. Via blood pressure and CVD analysis it is estimated that a half a gram average salt intake reduction across the UK population yields an annual benefit of 56,660 Quality Adjusted Life Years (QALYs).

40. A QALY (Quality Adjusted Life Year) is an economic measure that takes into account both the quantity and the quality of the extra life provided by a healthcare initiative. The DfT gives a full value of life at £1.5m, however, when subjects have only the latter stages in life a full value of life could seem disproportionate and therefore a QALY would be used.

41. As explained in detail in the Ofcom RIA referenced, the Agency considers it good practice to monetise a QALY at £30,000 in nominal terms. By discounting and summing these monetised QALYs over the four year period being considered to 2012 (using the Government’s social time preference rate of 3.5%) this yields an incremental present value benefit of £1.5 billion delivered by a half a gram reduction in salt intakes over 5 years.

42. In addition, the benefits described here would apply well beyond the five year policy period currently being considered to the extent that the reduced salt intake level persists.

**Administrative Burden Costs**

43. When salt reduction is not undertaken as part of the normal reformulation cycle there may be additional ongoing administrative costs to those businesses who commit to the salt targets (such as additional re-labelling and record keeping). Businesses who commit to the salt targets will also need to report to the FSA. However, because the policy is not mandatory, these additional costs do not fall within the government’s definition of administrative burden.

**Consultation**

44. The Agency consulted on the option 2 from 22nd of July to the 31st October 2008. We received 60 formal written responses. We also held a number of follow up meetings with both trade associations and individual companies.

45. The majority of stakeholders considered the approach that we were taking on revising the targets to be the right approach, although some sectors of industry felt that the targets should not be altered until 2010 which would allow work in the catering sector to progress and ‘catch up’ with the reductions achieved by the retail and manufacturing sectors. The evidence is, however, that the levels of salt in products being supplied into the catering sector overlap with those supplied into the retail sector and that to maintain progress towards the 6g target levels across both markets need to reduce further. NGOs felt that both averages and maxima should be set for each category and that whilst the revised targets were welcome they needed to go further. This sector also said that
legislation to set targets should be kept in mind as a future option for action should industry progress through the current voluntary programme not achieve 6g.

46. A number of detailed comments on the targets were received and have been fully considered and 22 targets and or/descriptions have been adjusted to reflect the detailed evidence provide to us by the industry.

47. All stakeholders were broadly content with the proposal to review progress on a biennial basis but some sectors of industry expressed a wish to see changes to the targets every 2 years kept to a minimum. NGOs were concerned that the review progress takes too long which will ultimately slow progress towards achieving the 6g intake goal and further revising the targets. It was also felt by this sector that better information should be made available to consumers to help make it easier for them to make healthier choices and that it was important to continue to monitor intakes as well as levels of salt in food.

48. Industry also requested a better assessment commented that the costs of reformulation that companies incurred if they undertook to meet the targets were not adequately represented. The Agency has undertaken an exercise post consultation to better understand the drivers for reformulation and the costs associated with reformulation and how the salt targets impact on these. The results of this work are included in Annex 1.

**Enforcement**

49. Options 1 (do nothing) and 2 (revise targets for 2010 and 2012) carry no enforcement requirements or costs as reformulation to reduce the salt content in processed foods would be voluntary.

50. Option 3 (legislation) would carry implementation and enforcement costs for local authorities through their trading standards and environmental health offices. Local authorities have not provided information on the likely costs for carrying out implementation and enforcement duties to ensure compliance with legal targets.

**Simplification**

This should expand the information given on page 2 about any offsetting measures and should explain any simplification measures for business and other stakeholders that are included in the policy.

51. There are no simplification measures with this policy.

**Implementation and Review**

This should expand the information given on page 2 and outline when and how the policy will be implemented and when it will be reviewed.

**Monitoring**

52. The Agency will continue to:

- Monitor salt intakes
- Review the major contributors of salt the diet
- Monitor the levels of salt in food.

53. Salt intakes will continue to be monitored by the NDNS rolling programme which will collect data on the types and amounts of food consumed as well as undertaking urinary sodium analyses to monitor intake levels. Scottish specific intake data will be collected as part of an additional urinary analysis module of the Scottish Health Survey in 2009. By 2010 the NDNS programme will also have provided sufficient data for the Agency to review the main contributors of salt to current diets.
54. The Agency will also monitor progress on salt reduction in foods biennially (starting in 2010), by utilising label data. However label data is insufficient for some food categories and we will collect data at product level direct from industry in the format agreed under the Self Reporting Framework (SRF) for a range of foods including: bread, rolls and morning goods; cheese; cakes; buns; pastries and pies; sandwiches; processed puddings; and some pasta products. The Agency will work to minimise the SRF data required and would propose to notify industry early in 2010 of the exact food categories for which data is required. Provision of this data remains voluntary.

55. The Agency recognises the continued public interest in individual company’s performance against the targets, and for this reason we will also collect information through a revised Salt Commitments Table which we will publish annually. We will ask industry to provide details on a voluntary basis and to supply information for the targets that apply to them in the following areas: overall progress to date (where this data is available), progress on salt reduction for the proceeding year, their plans for the coming year and the number of targets that they have met out of the total that apply to them.

56. The FSA has developed a strategy for engaging with stakeholders across the UK on its salt reduction initiative. We will continue to meet regularly with stakeholders, including meeting industry organisations at FSA headquarters and devolved offices and visits to their manufacturing plants, on a formal and informal basis to discuss progress in reducing salt levels in foods. As part of these reviews, we will consider what further work will be required to meet the 6g target and whether activity on salt reduction needs to extend beyond 2012.

Post implementation review

57. Progress will be reviewed on a two yearly rolling programme using the data and information set out above in the monitoring section. The Agency will also review the need for further targets to be set beyond 2012.
Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

<table>
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<th>Type of testing undertaken</th>
<th>Results in Evidence Base?</th>
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<tr>
<td>Human Rights</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Rural Proofing</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
Use the space below to indicate your consideration of at least the following specific impact tests.

**Competition Assessment**

1. Industry bodies had previously expressed concerns to us that individual manufacturers may be at a competitive disadvantage if they act unilaterally in following any government advice to reduce salt in their products. Continued target setting with the food industry is intended to facilitate individual action by food manufacturers to reduce the salt content of food in a context where it is likely to be perceived as a generally desirable development.

2. Making foods healthier and consequently salt reduction is an area of strong competition among companies. The Agency’s targets are voluntary and aspirational and therefore they are not a threat to competition or product innovation. Companies make the decision to undertake reformulation individually, and our experience shows that some companies seek to obtain a competitive advantage by going beyond the targets.

3. The FSA has a remit to undertake work for the UK only. For a number of categories, imported foods make a contribution to the number and variety of products currently on sale in the UK. Consequently some concerns have previously been raised about the potential for salt reduction to disadvantage UK manufacturers compared to their EU competitors. It should be noted that salt reduction is being stimulated at European level by the Commission via the High Level Group on Nutrition and Physical Activity, and through the European Salt Action Network, so this concern should be addressed through these mechanisms.

**Small Firms Impact Test**

*Say in this section how many SMEs were consulted for the Small Firms Impact Test. Also state what flexibilities were considered for SMEs as the policy was developed.*

4. Lack of knowledge about the levels of salt in their products would impact on small businesses’ engagement with this initiative. We are aware that, without information about the salt content in their products, small businesses will not be able to advertise the salt reductions they make through the use of claims on the product label as they would like. However, the voluntary targets have not been set at levels to promote claims or offer a marketing opportunity for any business — small or large. This is an important public health measure and therefore an ability to make a low-salt claim should not be the primary driver to reducing salt levels.

5. The catering and foodservice industry is characterised by high numbers of SMEs (e.g., the BERR Enterprise Directorate Analytical Unit estimate among restaurants that 87% of enterprises are micro businesses). The Agency intends to develop tools for use by small caterers to help them reduce salt in their products (and to increase the availability of healthier choices more generally). This is likely to be based on the “flexible framework” already developed for use by larger catering businesses, which advocates the development of action plans tailored to the resources and operating processes of the business. This may include (where it is practicable for companies) using the targets to identify *ingredients* that are lower in salt, and practical advice in relation to kitchen practices and menu planning, which can be used where that is more appropriate to the company.

6. The Agency has already developed guidance in association with the British Meat Processors Association on reducing salt safely in meat products. As bread contributes...
over 20% of salt intakes the Agency has also commenced a project with craft bakers which will provide tools to enable them to overcome the difficulties in reducing salt in bread and to meet the targets proposed for 2012.

7. In terms of retailer influence, the main supermarkets already have in place nutrition strategies encouraging the reduction of salt and therefore, as described above, work to reduce salt content is already ongoing. We wish this voluntary initiative to be a proportionate measure across a wide range of foods and businesses, and it is not our intention for retailers to pressurise small businesses to reduce salt levels to specified target levels within a shorter timeframe than our suggestion. We expect the larger, influential, companies to provide support to their smaller suppliers on how manageable reductions can be made and encourage them to do so.

Sustainable development
8. Impacts under the three pillars of sustainable development (environmental, economic and social) have been and continue to be considered in the preparation of this Impact Assessment. Option 2 is the preferred option because it minimises the cost to industry whilst maximising the benefits to consumer health.

9. While reformulation may require more frequent changes in labels however, there are mechanisms in place for industry to agree with their Home Authority that existing stocks of packaging can be used on reformulated products thereby limiting any wastage of labels and packaging and the resultant environmental impact.

Race equality issues
10. We are not aware of any food categories included in this policy that have a higher consumption by specific communities which would lead to differential impacts (e.g. price increases or decreased choice).

11. The evidence is not clear regarding whether some minority groups are more at risk from heart disease and hypertension; as such, there is little indication at this time of a differential health impact of this policy on any ethnic groups.

Gender equality issues
12. Although men’s salt intakes are higher than women’s, and their risk of suffering from heart disease and stroke is greater than women’s, we have no evidence at this time that indicates a differential health impact of this policy on different genders.

13. The salt reduction targets are one aspect of achieving reductions in the population salt intake to 6g per person per day. A salt intake of 6g per day is higher than the reference nutrient intake (RNI) for sodium (1.6g sodium/4g salt) and substantially more than the amount required to maintain the sodium content of the body. Therefore, it is not likely that achieving the salt reduction targets would cause any section of the population to have too low an intake.

Disability equality issues
14. Overall we do not consider there to be any differential impacts for disabled people other than positive impacts for people with heart disease and stroke who are within the scope of disability legislation.
This information was sourced through confidential discussions with manufacturers undertaken as part of the stakeholder engagement strategy of the Salt Targets. In total 12 organisations took part in the discussions and varied from large multi-national firms, supermarkets, trade associations to UK based food manufacturers.

The diagram above, illustrates the two main policy tools (awareness raising and targets) employed during the salt campaign and the main ways they may influence a food business.

However, it is extremely rare that the end food product created by reformulation can be attributable to an initial driver (except perhaps where one ingredient is quickly re-sourced due to a food incident). This is because even if a reformulation was initiated based on a single cause once it is decided to create a product brief, many other drivers are considered that will influence this brief.
Therefore even where the FSA voluntary targets may have initially triggered the reformulation, all the costs to produce the final product may not be attributable to the policy if other factors influenced the product brief. A brief overview (not exhaustive) of all the factors that can be both a trigger and influence for food product reformulation are illustrated below:

As is shown above, there are many factors that can trigger and influence a reformulation which are outlined in detail below.

**Internal**

*Continuous internal review processes and reformulation cycles*

There are often internal processes in place to review products and the need to reformulate, which can have a cyclical time-frame. This varies considerably depending on the product category and the individual company. Reformulation cycle estimates are discussed below:

Generally most food retailers agreed that most products (not including staple, ambient products) are reformulated within 3 years (or at least reviewed), this masks variations amongst product categories:

- Market leaders/core brands → reformulate up to 2 to 3 times a year, though products may not be reformulated at all if it is stable brand. In such cases, relevance, freshness and benchmarking against competitors are the key drivers
- Ready meals → can be reformulated up to 3 times a year
- Ambient goods → Can be over 5 years between reformulations
<table>
<thead>
<tr>
<th>Food Product</th>
<th>Average reformulation cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwiches, wraps, filled baguettes and similar products</td>
<td>6 – 18 months</td>
</tr>
<tr>
<td>Prepared or ready meals (hot/cold)</td>
<td>6 – 18 months</td>
</tr>
<tr>
<td>Burgers and sausages</td>
<td>2 - 3 years</td>
</tr>
<tr>
<td>Pies, pasties and quiches</td>
<td>18 mnths - 3 years</td>
</tr>
<tr>
<td>Breaded or coated or formed meat, meat alternative, poultry, fish and similar products including those in sauces</td>
<td>2 - 3 years</td>
</tr>
<tr>
<td>Pizzas</td>
<td>12 months</td>
</tr>
<tr>
<td>Breakfast Cereals</td>
<td>1 - 5 years</td>
</tr>
<tr>
<td>Canned vegetables</td>
<td>Rarely and only for salt recently</td>
</tr>
<tr>
<td>Plant Bread</td>
<td>Every new harvest although currently every 6 months for salt reduction.</td>
</tr>
</tbody>
</table>

The above information suggests that some reformulations are ‘built into’ the firm’s strategic horizon, others are not ‘built-in’ and those that are can be put forward or back depending on other triggers. These are explored below.

**Internal company health/nutrition policies**
These can be public statements of intent as part of a branding strategy or corporate social responsibility or internal standards on a host of nutrients or ingredient exclusions and sourcing, which are not widely communicated to the consumer and may include activity such as examining a product’s front of pack labelling profile.

**Regulatory framework**
This underpins and sets the parameters within, which reformulation operates e.g. labelling and health claims.

**External**
**Ingredients**
Food incidents are one the few drivers where there is often a clear single cause attributable to the reformulation (for example the need to remove an ingredient) and due to the necessity of a quick response; additional priorities/aims are often not added to the product brief.

The cost of ingredients is also another trigger for reformulation. Many companies continuously carry out least cost reformulation, whereby the cheapest supply of ingredients are sourced.

**Competitor activity**
There is intense competition and constant monitoring of product positioning, for example if company x’s products compare nutritionally very poorly to the rest of the competition, there will be a need to reformulate. Products will be constantly compared for taste expectations and other characteristics (e.g. texture, consistency, along side nutritional profiles etc). This driver sits along side internal health/nutritional policies.

**External institutions**
Institutions have a direct impact on the decision on whether to reformulate through a number of ways:
- by creating the legislative framework within which food companies operate e.g. labelling and health claims; and
- seeking public commitments. The EC have sought public commitments from companies, NGOs and MS on action to meet nutritional goals as set out in their nutrition action plans.
– these are made through the Platform for action on Diet, Physical Activity and Health (industry and NGOS) and the High Level Group on Nutrition and Physical Activity (Member States).

• In 2008 seven of the largest international food companies (Unilever, Pepsico, Coca Cola, Nestle, Kellogs, Kraft and Mars) have also committed to working on salt reduction in an open letter to the World Health Organisation in response to their calls for industry action in their Nutrition Action Plan.

Indirectly, institutions can affect company’s reformulation decisions by:

• influencing consumers through informational campaigns;
• establishing legislation on ways to communicate reformulations, such as labelling and advertising standards; and
• informing and influencing (through best practice/voluntary targets/traffic light labelling) firms’ internal nutritional policies.

Consumers
Consumers are often the key trigger for reformulation. The consumer’s preferences are communicated to the firm through a number of channels namely:

• changes in sales;
• research and taste panels which can also focus on future trends and tastes; and
• level and type of enquiries and complaints directly to the manufacturer or via third party e.g consumer groups

Building on this, there are a number of opinion formers which influence consumers. These are:

• media and press
• consumer groups, either indirectly via the media or directly to its members; and
• Governmental bodies, directly through information and awareness campaigns which generate discussion and inform consumers’ choices.
The Reformulation Process
Creating a product is essentially a two-stage project; the first is producing the product brief/product in a kitchen trial and the second is replicating this on production scale. During this two-stage process there may be internal/external sensory tasting. The overall process including nutritional analysis and labelling is outlined below:

**Produce a product brief** - Scope out project and reformulation targets based on industry benchmarks or internal targets, a top line analysis of technical feasibility and cost.

**Product development** - R&D team and engagement with supplier/s

**Creating the product for trial** – either small scale kitchen trials or industry trials - run plant trials to make new formulation (some companies can’t replicate product in test kitchens)

**Analytical testing** - Shelf life test, Nutrient Analysis, Shelf life evaluation, possibly supplier auditing

**Packaging and labelling** – new artwork, labelling changes

**Sensory testing** - consumer panels/taste tests are conducted (if this fails may have to repeat 1-3)

**Timescale**

The timescale varies greatly depending on the product, manufacturer and complexity. For example, for some products it can take a supermarket 8 weeks to 3 months to complete the reformulation cycle; for a manufacturer the process can take up to a year.
Reformulation costs

The diagrams below illustrate some of the more detailed information on reformulation costs obtained through the stakeholder workshops. As can be seen, different products (A-J) vary greatly in terms of costs of these different stages of the reformulation cycle. The costs are a reflection of a number of issues including: complexity of the reformulation undertaken and any problems encountered, market share and coverage of the product (e.g. UK only or pan European), volume of sales, cost of replacement ingredients and alteration to manufacturing equipment if relevant.

As noted previously these figures are costs for salt reformulation and cannot be solely attributed to the FSA Salt Targets.

Note. All costs are given in '000s of pounds.
Zero costs represent:
- products which did not exhibit such costs; or
- where cost estimates were not provided.

Labelling

Consumer Trials

Kitchen samples

Product analysis
Factory trials

H (0.2-0.5)  D E (1.5)

F I J
Reformulation costs
As outlined above, reformulation costs can vary considerably. Therefore, estimating an average cost for reformulation would be misleading.

<table>
<thead>
<tr>
<th>Producing a product brief / product development</th>
<th>Labour costs</th>
<th>The initial scoping and discussions with technical team/suppliers can take up to 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating the product for trial</td>
<td>Kitchen samples</td>
<td>£0.1k – 6</td>
</tr>
<tr>
<td></td>
<td>Failure rates</td>
<td>% needed to repeat in the factory</td>
</tr>
<tr>
<td></td>
<td>Factory run</td>
<td>Opportunity cost of not running the factory £20k</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Industrial production run - £1.5-20k</td>
</tr>
<tr>
<td>Sensory testing</td>
<td>Consumer panels</td>
<td>Varies widely £1-360k</td>
</tr>
<tr>
<td>Product Analysis</td>
<td>Nutritional analysis</td>
<td>£0.25-1.5k</td>
</tr>
<tr>
<td></td>
<td>Shelf life evaluation</td>
<td>£300</td>
</tr>
<tr>
<td>Labelling and packaging</td>
<td>Artwork and design</td>
<td>£200-600</td>
</tr>
<tr>
<td></td>
<td>Printer re-tooling, new plates</td>
<td>£500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Writing off of old packaging which may be £0 - £50K (should this have a separate line in the table?)</td>
</tr>
</tbody>
</table>

The largest (and most varied) costs occur i) where a factory run is required; ii) where significant labour costs are involved because of a lengthy development process; and iii) during sensory testing.
Role of Salt in Food and Cost Drivers of Future Reformulation

The diagram below shows the role that salt plays in food.

In the main, the previous salt targets involved the removal of added salt in food products. For certain products, the revised targets involve greater costs, since meeting the targets involves more than simply removing salt as an added ingredient. Based on consultation with industry, the main issues (relating to the function of salt in food) in reaching the revised targets (option 2) are summarised below:

**Consumer acceptability**

**Flavour enhancer & salty taste**

Reducing salt levels in a food product can alter the taste (where there are already consumer flavour expectations), either because of salt’s role as a flavour enhancer or where the consumer is expecting to taste salt. Food businesses seek to ensure the original product is not significantly preferred to the reformulated product or, in the case of an iconic brand, that it doesn’t taste different to consumer expectations. Failure to resolve these problems may result in a fall in sales and substitution with other food products, therefore when removing salt there will be costs associated with ensuring consumer acceptability. This can increase costs of reformulation in the following ways:

**One-off costs**

- Increase in sensory testing.
- Increased kitchen and plant trials, this is likely to be more difficult in complex composite food products due to flavour balancing.

**On-going costs**

- Substitute for salt, for example, the use of yeast extracts as flavour enhancers.
- Flavour balancing – changing other flavoursome ingredients to negate the affect of removing salt

**Colour & texture**

Salt appears to be integral to the way a product’s texture and colour is formed e.g. breakfast cereals, some snacks and certain bread types. Reducing the amount of salt can increase costs of reformulation in the following ways:

**One-off costs**

- Research and Development of new processing techniques – including additional plant and kitchen trials
• Capital investment costs in food manufacturing plant where new processing techniques involve the replacement of existing machinery.

On-going costs
• Substitution to alternative ingredients that can function in a similar way to produce the desired colour and texture
• Increased cooking times to ensure adequate colour.

Food Safety

Natural preservative
Salt is a natural preservative and its removal would either reduce the shelf life of the product or require the addition of alternative preservatives, which may be more costly or have less consumer acceptability. This can increase costs of reformulation in the following ways:

One-off costs
• Extra kitchen and factory trials to test feasibility of the use of alternative preservatives
• Shelf-life testing
• Consumer acceptability testing – both sensory and research as to whether consumers would accept artificial preservatives in that food product.
• Capital investment in factories, where salt is a critical control measure in the production of a processed food. For example, where it controls water activity, this may necessitate changes/re-tooling in other areas of the production process to control the risk.

On-going costs
• Transport costs of more frequent supplier runs
• Less economies of scale in production due to shorter factory runs
• Increased possibility of spoilage at a manufacturing level, leading to increased wastage.
• Reduction in shelf life leading to an increase in wastage in-store and possibly in the home.

Other technical constraints

Sodium based food ingredients.
Whilst the majority of sodium comes from salt there are some products for which this is not the case e.g. sodium bicarbonate in cakes and biscuits, sodium based emulsifiers in cheese spreads.

Progress on sodium reduction in these types of products beyond the removal of all added salt will depend on the development of replacement ingredients that perform the relevant functions and/or changes in the production process.

One off costs
• Research and testing on alternative ingredients
• In factory production trials

Ongoing costs
• Replacement ingredients
• Capital investment in any changes to manufacturing equipment.

Processing limitations
The removal of salt from some types of products e.g. premium breads, pastry makes the processing of the product on the production line more difficult. For example, bread dough becomes more sticky and pastry becomes more subject to breakage.
One off costs
- Research and testing into alternative ingredients/recipes or alternative ways of manufacturing
- In factory production trials

Ongoing costs
- Replacement ingredients or costs associated with rebalancing recipes.
- Capital investment in any changes to manufacturing equipment.

**Other costs resulting from reformulations removing salt**

**Re-sourcing suppliers**
Stakeholders have indicated that in some areas there may be a restricted supplier base for lower-salt versions of commonly used ingredients, which increases costs.

**Recipe regionalization**
While some multinational products may have the same recipe across countries, other products may be regionalized due to differing consumer tastes. Reformulation in such cases may require a number of taste panels etc. therefore increasing the complexity and cost further.