



The Food and Environment
Research Agency

Strategic Direction and Corporate Plan

2009/10-2011/12



Contents

1 Foreword from the Chief Executive	3
2 The Challenges Ahead	4
3 Fera Operating Model	6
4 Our Capabilities and Objectives	8
• Horizon Scanning, Policy and Strategy Development	8
• Research and Innovation	10
• Expert Identification, Measurement and Modelling	12
• Risk Assessment, Mitigation and Contingency Response	14
• Better Regulation, Inspection, Auditing and Advice	16
• Development and Management of Globally Important Capabilities, Facilities, Collections and Data Sets	18
5 Sustainability	20
Annex A: Defra's Departmental Strategic Objectives	21
Annex B: 3 Year Financial Projections	22
Annex C: High Level Organisational Design	23

1 Foreword from the Chief Executive



I am delighted to introduce the new Food and Environment Research Agency's first Strategic Direction and Corporate Plan. We have written it for the benefit of the Agency's 40,000 customers and 1000 partners in 102 countries with whom we collaborate, the 900 staff across 40 UK locations, and the many potentially interested parties, whether in Brussels, Whitehall, Westminster, academia, industry, or the media, all of whom in future I am sure will have dealings with the Agency.

This first Plan has been written with input from many of the customers and partners of the four organisations that have come together to create the Food and Environment Research Agency, for which I am most grateful. The realisation of the new Agency's full potential however will only come if in our first year we raise awareness of the Agency's existence and service offerings, and build effective strategic and collaborative partnerships.

The Agency inherits the expertise and respected heritages of each of the merging organisations, in some cases stretching back nearly a century. Fera represents a uniquely broad range of scientific disciplines in one organisation and for the first time, fully integrates science with policy, regulation and inspection responsibilities. This combination of over 700 scientists and experts, many of whom are world-leading authorities in their field, offers tremendous potential which we are keen to realise. This will enable us to play a wider and even more effective role in tackling the global food and environmental challenges of the next decade and to lead the policy agenda on these issues for the UK. The state of the art facilities used by the Agency, particularly the laboratories near York, have the potential to generate a larger output, but also the opportunity to achieve exciting new synergies through development of the site as a hub for related science and innovation.

Launching a new Agency in the teeth of one of the worst economic and financial storms in memory will present us and our partners with challenges but, we believe, also opportunities, primarily through smarter collaboration, innovation and by ensuring that we realise the full potential that Fera represents. This will ensure that Fera's vital scientific and research capabilities are both secure and best placed to leverage their knowledge to solve the difficult challenges facing governments and commercial customers worldwide. On the bicentenary of Darwin's birth, we are responsible for ensuring that our research, evidence and advisory capabilities evolve through this period as not only fit to survive, but also increasingly valued by all who depend on them.

Please feel free to comment on this document and explore your interest in working with us in the future, either by contacting me, or visiting <http://services.csl.gov.uk/fera>

Adrian Belton
Chief Executive
April 2009

2 The Challenges Ahead

Over the next three years, effectiveness, flexibility, and value for money will be key determinants of success for Fera in its role of providing robust evidence, problem solving, rigorous analysis and expert professional advice to government, international organisations and the private sector.

Prevailing circumstances will be challenging for Defra as none of the existing issues represented by its broad mission and strategic objectives can afford to be ignored and many new ones will undoubtedly emerge under the pressures of the next 3 years. Maintaining momentum in a 'financially challenged' environment will require an even closer working relationship with its Executive Agencies to deliver the Department's strategic priorities to:

- Secure a healthy natural environment for us all and deal with environmental risks;
- Promote a sustainable, low-carbon and resource-efficient economy; and
- Ensure a thriving farming sector and a sustainable, healthy and secure food supply.

As an Executive Agency of Defra, Fera plays an important role by providing operational policy and regulation in support of these priorities, particularly in respect of plant and bee health, crop varieties and seeds. In addition Fera undertakes and delivers high quality evidence and support for other regulatory issues such as animal health and welfare, genetic modification (GM) and non-native species. By delivering effective outcomes in these key areas of responsibility, we directly contribute across most of Defra's Strategic Objectives (provided at Annex A), but particularly to:

- A healthy, resilient, productive and diverse natural environment;
- An economy and a society that are resilient to environmental risk;
- A thriving farming and food sector with an improving net environmental impact; and
- A sustainable, secure and healthy food supply.

Society today faces an increasing number of global threats and challenges. Recent events have illustrated the fragility of global food security and the need to establish strategies for the future with some urgency. Fera's science and regulatory expertise will have a key contribution to make in the UK, the EU and globally to maintaining adequate food supplies at affordable prices, particularly through plant health, bee health, new variety assessment and seed approval, all in the context of acceptable environmental impact.

The consequences of climate change continue to emerge and one of Fera's biggest challenges will be to contribute to combating, as well as anticipating and mitigating, the effects of climate change. Examples of issues involved include:

- the increasing prevalence of non-native quarantine crop pests and disease affecting crop yields, and also the ability to import and export food and plant products;
- the effect on the soil, and thus the plants and crops grown in it, from polluted water on land increasingly prone to flooding;
- the wellbeing of and evolving habitats and patterns of insect, mammal and bird migration which present ever changing challenges, e.g. threats of bird strike near airports and wind farms.

The destabilising effect of the global financial crisis is likely to increase the threat of a deliberate or accidental release of chemical, biological, radiological and nuclear (CBRN) agents. Fera plays a key role in this arena and will focus on the need for a more strategic approach to disaster recovery processes and capability. The Agency is responsible for the UK Government Decontamination Service (GDS) and provides access to expertise on dealing with the decontamination of the built and open environment following the consequences of terrorist or major accidental incidents involving the release of CBRN materials.

Other Government Departments will benefit from Fera's combined skills and expertise to help meet new challenges and to build on existing contributions to their priorities and objectives:

- Climate Change (Department for Energy and Climate Change)
- International Poverty Reduction and achieving Millennium Development Goals (Department for International Development)
- Counter-terrorism (Home Office)
- Safer communities (Home Office)
- Innovation and skills (Department for Innovation, Universities and Skills)
- Food Safety, Choice and Healthy Eating – support for the Food Standards Agency (FSA) strategic priorities
- Environment, Sustainability and Rural Affairs (Welsh Assembly Government)

The commercial world in food, agriculture, environment and related sectors will also face daunting challenges in the next few years as the consequences of the current recession work through the business system. All companies will be under pressure to remain profitable and to preserve shareholder value, whilst at the same time facing the safety and regulatory challenges that must be met successfully in order to preserve brand reputation and to grow product ranges. The wide range of applied science expertise in Fera and the ability of the organisation to integrate these skills flexibly, offers a unique basis for tackling industry's challenges in a reliable, cost-effective and confidential manner.

Fera and all its partners in government, international organisations and the private sector face financial challenges in the medium term. As an Executive Agency of government, our funding is derived primarily from the public purse, which is also the case for many of our partners. Maintaining and attracting funding and investment in the necessary research and supporting capabilities will therefore be especially challenging over the period covered by this plan. At a time of global recession it will be more important than ever for us to demonstrate through more effective collaboration, that between us we can tackle these food related and environmental challenges.

The range of science at Fera under one management offers great potential to meet new challenges quickly, effectively and in a cost-effective manner, facilitated enormously by the integration of science with policy, regulation and inspection within the new Agency to provide an holistic approach to discerning and tackling issues. Fera will become far more than the 'sum of its parts'. Our science and research will need to more effectively inform and shape debates which provide the solutions to these issues. Driving innovation, whether through policy and regulatory intervention or in the way intellectual property (IP) is exploited, will be essential, thus underscoring the potential role Fera itself can play in both solving environmental challenges and in helping the economy to recover.

3 Fera Operating Model

Our Responsibilities

Our Capabilities

	Regulation, Policy and Risk	Research and Assurance	Response and Recovery
1 Horizon Scanning, Policy and Strategy Development	Deliver more proportionate and evidence-based policy outcomes in the areas of Plant Health, Bee Health and Plant Varieties and Seeds.	Increase the breadth and impact of our scientific contribution to Defra and wider government in support of policy development.	Develop and exploit horizon scanning to assess and protect society from future food security and environmental risks.
2 Research and Innovation	Develop and identify new work programmes, providing policy support and evidence in sustainable land use and addressing the consequences of climate change on food production and food security.	Improve our scientific Innovation through comprehensive strategic relationships with the UK, EU and international research community. More effectively develop and exploit scientific innovation.	Exploit the broader scientific expertise within the organisation to better understand the underlying risks and to reduce the gap between known capability and likely service requirement.
3 Expert Identification, Measurement and Modelling	Improve use of available knowledge and tools to underpin better policy making across government.	Add value across government and industry by exploiting and marketing leading edge capability in e.g. modelling and statistical expertise.	Support and enhance our capability in emergency and contingency response and recovery.
4 Risk Assessment, Mitigation and Contingency Response	Improve use of risk assessment based on sound evidence to support regulation and policy.	Expand and develop innovative risk assessment methodologies in an increasing range of fields, e.g. socio-economic sciences through partnership.	Improve use of expert operational and scientific advice in contingency planning and emergency response and recovery.
5 Better Regulation, Inspection, Auditing and Advice	Develop and implement best practice in regulation to optimise the balance of desired outcomes and burden on industry.	Develop innovative solutions to support smarter regulation, reduce burden and increase quality of advice.	Extend provision of strategic guidance to improve UK and International resilience against risks e.g. to support global trade
6 Development and Management of Globally Important Capabilities, Facilities, Collections and Data Sets	Demonstrate and promote the value and relevance of both our and others' assets and resources.	Develop and exploit information and knowledge resources in partnership with stakeholders. e.g. to facilitate knowledge transfer to industry and to inform future policy and science questions.	Ensure Fera resource is recognised as part of wider UK and International expertise in order to improve response and recovery capacity and capability.

Fera discharges its functions in 3 distinct areas of responsibility:

REGULATION, POLICY AND RISK

Operating as a national authority, we have statutory responsibilities for delivering policy and inspectorate functions in relation to Plant Health, Bee Health and Plant Varieties and Seeds. Policy activities span the range from protecting the public to facilitating trade, and encompass food production and assurance, as well as environmental protection and remediation. Scientific, and risk and uncertainty work contributes to policy across government, not least global food security and climate change. This work is potentially high profile, generating evidence for policymakers and giving credibility to policy development. Our credentials as a National Reference Laboratory contribute greatly to this and also feed into response, and recovery from, Chemical, Biological, Radiological and Nuclear (CBRN) and HazMat incidents.

RESEARCH AND ASSURANCE

We undertake work as a research organisation, demonstrating academic credentials defined by scientific excellence, innovation, scientific publications and collaborative links. We provide authoritative science research and services to underpin national policy, inspection and response functions. Fera supports the food, water, environment and plant health industries in meeting consumer protection legal requirements, by operating a number of Proficiency Testing Schemes that provide assessments of technical performance of their own analytical laboratories. Our aim is to be a respected provider of innovative and purposeful science support and advice. Our focus is at the national and international level, linked to developments in global science, technology and innovation, as well as providing evidence in response to immediate policy challenges.

RESPONSE AND RECOVERY

Building on our merger with the Government Decontamination Service (GDS), along with our national laboratory, we provide an essential element of the nation's capability to respond to, and recover from, emergency situations, including the deliberate (CBRN) or accidental (HazMat) release of chemical, biological, radiological or nuclear materials.

While the national laboratory provides an emergency and contingency response, it is also a contract laboratory and service provider to government customers and the commercial sector. Through this service provision, Fera supports UK and international business. Our drive for efficiency encourages commercial opportunities to be exploited and the generation of additional income to help maintain critical mass and underpin the infrastructure of the Agency.

As part of Fera, the GDS increases UK resilience by providing advice and guidance and support to those responsible for dealing with the consequences of an accidental or deliberate release of hazardous materials. It also facilitates quick access to an assured Framework of specialist suppliers able to offer appropriate decontamination and related services in response to a CBRN or major HazMat incident.

In delivering these areas of responsibility, Fera draws upon 6 core capabilities within the agency – Horizon scanning, policy and strategy development; Research and innovation; Expert identification, measurement and modelling; Risk assessment, mitigation and contingency response; Better regulation, inspection, auditing and advice; and, Development and management of globally important capabilities, facilities, collections and data sets.

The matrix opposite details Fera's key objectives for the next 3 years of operation and, in so doing, outlines where we need to either consolidate and exploit existing expertise or build and develop new capabilities.

4 Our Capabilities and Objectives

Horizon scanning, policy and strategy development

“Our unique organisation both understands the challenges of policy and regulation and provides a robust evidence base. Our horizon scanning, forecasting and strategic analysis skills will contribute to national and international policy development in the key areas of global challenge and concern.”

REGULATION, POLICY AND RISK – OBJECTIVE 1

We will:

- Work with key stakeholders to develop options, which can inform the planned review of the EU plant health regime and the European Commission’s plans for developing an EU Plant Health Strategy.
- Negotiate to achieve an improved regime, with a better evidence base, faster decision making, more effective targeting and more consistent application of measures, improved use of limited resources and the right balance between effective plant health security and trade facilitation.
- Work with stakeholders to develop and implement an action plan to address the priority actions identified in the ten-year plant health strategy for England and informed by recommendations from the National Audit Office.
- Work with key stakeholders to ensure that better regulation principles are reflected in the European Commission’s current review of EU seeds legislation.
- Develop an implementation plan for the UK Bee Health Strategy.

RESEARCH AND ASSURANCE – OBJECTIVE 2

We will:

- Ensure that our expertise on wildlife management is engaged effectively during the animal health policy cycle so as to improve the contribution of the agency towards achieving Defra targets in delivering the Animal Health and Welfare Strategy.
- Contribute to the improved coherence of biological risk management within the EU and internationally, by influencing the development of relevant regimes, including those for invasive alien species and biological control agents.

RESPONSE AND RECOVERY – OBJECTIVE 3

We will:

- Undertake horizon scanning in our core science areas of plants, wildlife, environment and food safety.
- Develop critical mass in climate change expertise in order to deliver evidence to support Government policy on climate change, particularly in relation to adaptation.
- Develop technologies to characterise genetic resources and facilitate their inclusion in developing crop varieties that meet the challenge of increased food production, reduced environmental impact and changing threats due to climate change and loss of pesticides.
- Continue to model change in pest and disease pressures in response to climate change (combining expertise in R&D, risk and uncertainty). Identifying reducing pressures as well as those that will increase.

Horizon scanning, policy and strategy development

Fera has lead responsibility for developing policy and regulation for Plant Health, Bee Health and Plant Varieties and Seeds, as well as implementing the Plant Health Strategy for England. Fera brings together in one organisation policymakers, inspectors and scientists with plant, seed and bee health expertise. Our wide-ranging remit in this area is a key contributor to protecting the natural environment and crop yields, and facilitating the import and export of products.

Our policy and scientific experts directly participate in leading influential fora, such as the EU Standing Committee on Plant Health, EU Framework programmes, EPPO¹, UPOV² and the Food and Agriculture Organisation. They also support Defra and other organisations dealing with policy and strategy development in the areas of environment, food safety, wildlife and plants.

Fera also contributes to future strategy development for both Defra and other Government Departments through its horizon scanning activities. The use of horizon scanning is increasingly featuring in the processes of UK Government Departments. Most notably in Defra and the Department for Innovation, Universities and Skills (DIUS), with a series of horizon scanning projects commissioned on land-use, agriculture and rural economies for Defra, and obesity and infectious diseases for DIUS under the Foresight Programme. Increasingly horizon scanning is taking on international dimensions, recognising the global nature of many of the drivers under consideration. Fera already has a track record in this area on which to build, currently undertaking work on biofuels, land-use scenarios, fate of pesticides with climate change and the DIUS Foresight work.

WHAT WE WANT TO ACHIEVE IN HORIZON SCANNING, POLICY AND STRATEGY DEVELOPMENT

Objective 1: Deliver more proportionate and evidence-based policy outcomes in the areas of Plant Health, Bee Health and Plant Varieties and Seeds.

By bringing together plant health policymakers and scientists, Fera will be in a position to deliver more proportionate and evidence-based policy outcomes.

Objective 2: Increase the breadth and impact of our scientific contribution to Defra and wider government in support of policy development.

Fera will increase its contribution to other Defra policy areas such as adaptation to climate change, global food security, non-native species and wildlife. In addition, Fera will support government strongly in areas where there are international commitments and a need to deliver policy through international cooperation. For example, biosecurity and trade compliance (CODEX, IPPC and OIE), seed regulation (UPOV and CPVO), biodiversity (CBD) and climate change (IPCC, Kyoto).

Objective 3: Develop and exploit horizon scanning to assess and protect society from future food security and environmental risks.

Fera will contribute to UK and international horizon scanning and will invest in new areas of science in our core science areas of plants, wildlife, environment and food safety to support new and emerging science and technologies.

¹ EPPO – an intergovernmental organisation concerned with protecting plants from dangerous pests and diseases.

² UPOV – an international organisation concerned with intellectual property protection for plant varieties.

Research and Innovation

“We have internationally recognised core expertise in a wide range of scientific areas. By understanding our customers’ and stakeholders’ needs we are already established in leading the strategic and applied research agenda in the areas of plants, wildlife, environment and food.”

REGULATION, POLICY AND RISK – OBJECTIVE 4

We will:

- Further develop existing programmes investigating the application of integrated pest management/ biological control strategies in support of the sustainable land use and food security agendas.
- Exploit and develop the science and application of Risk Assessment into new areas such as nanomaterials.
- Develop and apply cutting edge skills in analytical chemistry and modelling techniques to determine the fate and behaviour of chemical contaminants to secure the safety and sustainability of food and the environment.
- Develop and expand scientific capability and services to support International development initiatives to increase food security.

RESEARCH AND ASSURANCE – OBJECTIVE 5

We will:

- Increase the number of proposals to Research Councils to provide scientific excellence with impact.
- Provide innovative applied solutions through our own scientific and technical skills, in collaboration with fundamental researchers, industry, technology developers and stakeholders e.g. working with the VLA supporting wildlife vaccines registration.
- Increase the exploitation of existing IP and seek further commercial opportunities for our scientific knowledge through Public Sector Research Exploitation (PSRE) programmes such as Interact by developing strategic links with industry, Universities and Agencies.
- Continue to be at the leading edge of the development of novel diagnostic techniques and explore new applications in the healthcare sector.

RESPONSE AND RECOVERY – OBJECTIVE 6

We will:

- Develop new areas for research into CBRN related areas, through integrating GDS into the Fera science base.
- Provide an analysis of the national risk assessment that can be affected by Fera activities.
- Extend the understanding of the GDS Specialist Framework of Suppliers’ scientific offering, taking account of the national risk assessment requirements.

Research and Innovation

Our internationally recognised expertise in our sciences and sectors sustains targeted research activity and underpins our development of innovative applied solutions. We provide the scientific evidence base to support decision-making and take the output from fundamental research and turn it into usable technologies. We collaborate with a comprehensive network of partners in industry, government and academia to deliver the best fit-for-purpose solutions.

WHAT WE WANT TO ACHIEVE IN RESEARCH AND INNOVATION

Objective 4: Develop and identify new work programmes, providing policy support and evidence in sustainable land use and addressing the consequences of climate change on food production and food security.

We now aim to further develop existing work programmes, providing policy support and evidence in sustainable land use and addressing the consequences of climate change on food production and food security. Attracting talented researchers and innovators as staff members will be key to achieving this objective.

Objective 5: Improve our scientific innovation through comprehensive strategic relationships with the UK, EU and international research community. More effectively develop and exploit scientific innovation.

We currently collaborate extensively with leading experts worldwide in industry, government, academia and major manufacturers, and our aim is for Fera to become the collaborative partner of choice in these areas. In particular we aim to develop a more comprehensive strategic relationship with the UK's Research Councils and Universities. Within the Defra Network, our aim is to develop effective collaboration at all stages of the policy cycle to ensure our scientific evidence base supports policy development and implementation.

Objective 6: Exploit the broader scientific expertise within the organisation to better understand the underlying risks and to reduce the gap between known capability and likely service requirement.

Fera will bring together a wider range of scientific disciplines in one organisation, and one of our key objectives is to exploit this pool of expertise. For example, closer links with different types of experts (e.g. agriculture, wildlife, environment and CBRN) will provide a more holistic perspective to the assessment of risk.

Expert Identification, Measurement and Modelling

“Our unique breadth and depth of scientific expertise uses an extensive spectrum of skills, from classical taxonomy and field ornithology through cutting edge technology such as molecular techniques for pathogen identification and food authenticity, to complex low level residue analysis and mobile radar for wildlife tracking.”

REGULATION, POLICY AND RISK – OBJECTIVE 7

We will:

- Extend and improve our molecular diagnostic and analytical services in areas including plant and seed health, wildlife and livestock diseases, GM seed testing, variety and species identification and forensics to support better policy making and to produce more cost-effective and responsive services with front-line applications wherever possible.
- Provide methods to interpret and optimise surveillance and identification programmes, for example, analysis and modelling of GM seed sampling regimes to best balance sampling costs with minimum acceptable limits of contamination.

RESEARCH AND ASSURANCE – OBJECTIVE 8

We will:

- Maintain our National Reference Laboratory, or equivalent status in all priority areas and extend our recognition as an International source of expertise in new additional areas.
- Expand our capability to test environmental samples, including water, soil and air, for biological (e.g. pathogens) and chemical (e.g. pesticides) contaminants.
- Establish International standards for the use and interpretation of radar for animal movement studies.
- Maintain our Proficiency Testing knowledge and expertise and operate proficiency testing schemes for industry's own analytical laboratories.

RESPONSE AND RECOVERY – OBJECTIVE 9

We will:

- Further development of novel laboratory detection systems capable of identifying unknown targets, thus extending our CBRN and contingency response and recovery capabilities.
- Continue to develop rapid, on-site testing capabilities for field-based inspectors and technicians, including portable DNA and chemical detection systems.

Expert Identification, Measurement and Modelling

Using state-of-the-art analytical instruments and software to interpret data, our world-class scientists examine thousands of samples a year from around the world for government and industry. We are at the forefront of developing rapid identification and diagnostic techniques for use both inside and outside of the laboratory. Together with our expert modelling and statistical skills, we provide comprehensive and cost-effective solutions for our customers.

Our expertise in these areas helps protect food chain safety through detection and measurement of chemical contaminants and residues in foods and feeds; detects and identifies plant pests and diseases that pose a threat to the UK environment and agriculture; and assesses the risks to the health of the environment from animal diseases through modelling animal population dynamics across large areas. Our expertise enables Fera to provide key assurance services to the food, environment and plant health industries through maintaining a number of Proficiency Testing schemes for industry's own analytical laboratories.

WHAT WE WANT TO ACHIEVE IN EXPERT IDENTIFICATION, MEASUREMENT AND MODELLING

Objective 7: Improve use of available knowledge and tools to underpin better policy making across government.

Fera provides robust evidence, rigorous analysis and professional advice to help Defra and other customers support and develop their policy. In the areas of Plant Health, Bee Health and Plant Varieties and Seeds, where Fera leads policy development, the process is more cohesive and this is reflected in Objective 1. For other areas of policy, our aim is to promote earlier and more effective engagement through the Defra policy cycle, and to build more collaborative partnerships with our other government customers.

Objective 8: Add value across government and industry by exploiting and marketing leading edge capability in e.g. modelling and statistical expertise.

Our aim is to market and raise awareness of our service offering in this area of expertise, particularly with customers and stakeholders in relation to REACH (Registration, Evaluation, Authorisation and restriction of Chemicals), forensics and possibly water quality where we believe there are new opportunities for closer collaboration. As leaders in the field of identification, measurement and modelling, our intention is to influence the establishment of international standards where appropriate.

Objective 9: Support and enhance our capability in emergency and contingency response and recovery.

Our world-leading applied molecular biologists have successfully adapted sophisticated laboratory DNA forensic methods for use outside the laboratory. This gives port inspection authorities and fieldworkers dealing with outbreaks the ability to detect plant and animal pathogens at the earliest opportunity. Our aim is to continue to build on these techniques.

Risk Assessment, Mitigation and Contingency Response

“We are at the forefront Internationally in development and utilisation of risk assessment methodologies in food safety, environmental fate and behaviour of chemicals, plant health, bee health and wildlife management.”

REGULATION, POLICY AND RISK – OBJECTIVE 10

We will:

- Develop more comprehensive risk and uncertainty modelling methodologies around key policy areas – such as a more quantitative, risk-based approach to enforcement of seeds marketing regulations.
- Take a fresh and comprehensive look at policy options and changing levels of risk in reviewing the optimum approach to targeting PHSI inspections e.g. including support to exporting countries, understanding behaviour and the impact of trade patterns and climate change.

RESEARCH AND ASSURANCE – OBJECTIVE 11

We will:

- Expand our risk assessment capabilities for chemicals in the environment, gaining new insights by investing in and deploying more powerful detection and identification techniques.
- Maintain our pre-eminent position in Pest Risk Analysis (PRA) development.

RESPONSE AND RECOVERY – OBJECTIVE 12

We will:

- Continue to develop sound scientific underpinning for the activities of the GDS.
- Expand our contingency and consequence management capabilities and build on our role as a provider of a rapid and flexible range of services which can be called upon to deal with a variety of different types of emergency.
- Develop closer working arrangements with other organisations with emergency response and recovery responsibilities and with members of the Inter-Lab Forum to maintain and improve cross-government capability and engagement.

Risk Assessment, Mitigation and Contingency Response

Risk identification and assessment requires specialist analytical skills, the integration and statistical manipulation of large data sets, and the exploration of scenarios and implications. Combining all these elements, often at short notice, to produce coherent risk assessments to guide decision making and consequence management is a key strength of Fera's. We go beyond assessing the risks to providing the solutions to help mitigation or removal.

We contribute to the national risk assessment and contingency capability and provide a flexible rapid response when called upon. We have responsibility for the UK Government Decontamination Service (GDS) whose role is to advise and guide those responsible for handling deliberate and accidental releases of chemical, biological, radiological and nuclear materials, and to facilitate access to a Framework of Specialist Suppliers able to undertake decontamination-related work.

WHAT WE WANT TO ACHIEVE IN RISK ASSESSMENT, MITIGATION AND CONTINGENCY RESPONSE

Objective 10: Improve use of risk assessment based on sound evidence to support regulation and policy.

The creation of Fera will enable more integrated access to scientific evidence in support of risk assessment and risk management procedures in the areas of Plant Health, Bee Health, Plant Varieties and Seeds. This includes access to statistical expertise to ensure effective inspection and sampling regimes that are targeted at the highest risk areas.

Objective 11: Expand and develop innovative risk assessment methodologies in an increasing range of fields, e.g. socio-economic sciences through partnership.

Larger organisations can more readily embrace the sharing of experience and expertise to design and implement more robust risk management processes and methodologies. Fera will allow a consistent application of the Hampton recommendations on risk assessment through the sharing of best practice. We also recognise that our existing risk analysis capability could be further enhanced by working with other organisations with a different perspective, such as socio-economic sciences.

Objective 12: Improve use of expert operational and scientific advice in contingency planning and in emergency response and recovery.

Incorporating GDS within the agency has the potential to deliver a unique emergency response and recovery service offering. In order to realise this, Fera must ensure that its operational and scientific experts across the organisation are fully integrated and working collaboratively within the Emergency Response and Recovery Programme. As a unified organisation, Fera will be able to provide a more cohesive presence within government, and therefore offer greater influence in the development of CBRN contingency strategies and policy – particularly around remediation and related matters. Fera will provide access to a greater breadth of science which will enhance work on capability assessment, and offers GDS the potential to build on its innovative approach to identifying and addressing capability gaps. With a more well-rounded approach, Fera (and in turn, GDS) will be able to provide a more robust and resilient practical service to government and other responsible authorities in a CBRN or major HazMat incident.

Better Regulation, Inspection, Auditing and Advice

“We work with our stakeholders to provide regulation that is recognised as being effective and proportionate, supported by robust and best current advice, surveillance and risk based implementation.”

REGULATION, POLICY AND RISK – OBJECTIVE 13

We will:

- Become a fully compliant Hampton regulator, working in partnership with BERR, taking an integrated approach to inspections in order to minimise burdens on clients.
- Develop a strategy for bee disease inspection and surveillance in support of the implementation of the Bee Health Strategy.
- Develop a strategy for Plant Health risk-based surveillance.
- Ensure there is a robust and effective import inspection service for plants and plant products, which is properly resourced to meet EU targets.
- Achieve ISO 9001:2000 and inspectorates ISO 17020 to ensure staff competence and continuous improvement in regulatory and implementation processes to the benefit of clients.
- Deliver proportionate and risk-based implementation and enforcement of seeds marketing legislation, maximising direct involvement of the seeds industry to manage costs while maintaining seed quality.

RESEARCH AND ASSURANCE – OBJECTIVE 14

We will:

- Deliver innovation in testing for National Listing to manage costs and provide value for money under a policy of full cost recovery.
- Deliver sampling and surveillance tools to underpin risk-based inspections for plant and bee health and seed audits.

RESPONSE AND RECOVERY – OBJECTIVE 15

We will:

- Assess market opportunities for the provision of consultancy and advice in the areas of Plant Health and Plant Varieties and Seeds.
- Work to assess risks associated with adventitious presence of GM in seed, environmental impact assessment, post event monitoring and recovery.
- Work with central government partners to develop strategic national guidance for the decontamination of built and open environment and critical national infrastructure.
- Provide regular updates to government on the capabilities of the GDS Framework of Specialist Suppliers, and mitigating action to identify and meet capability gaps.

Better Regulation, Inspection, Auditing and Advice

We are responsible for the implementation of International legislation on Plant Health, Bee Health and Plant Varieties and Seeds, and for delivering the associated statutory services. We operate government inspectorates (Plant Health, Bee Health and GM) with the common aim of balancing effective regulation of risks to the environment, plants, animals and people with minimising the regulatory burden on industry and trade. Our inspectors play a key role in facilitating import and export trade by advising industry on best practice and how to meet International standards.

WHAT WE WANT TO ACHIEVE IN BETTER REGULATION, INSPECTION, AUDITING AND ADVICE

Objective 13: Develop and implement best practice in regulation to optimise the balance of desired outcomes and burden on industry.

One of the key benefits in bringing together scientists, inspectors and policy-makers into a single organisation is to provide a 'one-stop shop' approach for customers, coupled with a more risk-based approach to regulation. We are beginning to develop this approach with integrated processes for assuring seed quality and GM thresholds. This will provide assurance that seed is properly labelled whilst minimising the regulatory burden and cost for both seed producers and crop growers. Our strategic challenge is to build on this approach in our other areas of regulatory responsibility.

Objective 14: Develop innovative solutions to support smarter regulation, reduce burden and increase quality of advice.

With closer integration of practitioners, policy makers and researchers we will have even more purpose to our science. A major objective is to move our rigorous testing methods and business systems into the field, to support on the spot diagnosis and reporting, e.g. lateral flow devices for disease confirmation. This will speed up decisions, reduce cost and uncertainty and create opportunities for greater industry involvement in the risk management and compliance process.

Objective 15: Extend provision of strategic guidance to improve UK and International resilience against risks e.g. to support global trade.

Fera will draw on its existing commercial expertise to develop a wider service provision in international consultancy, advice and training from its Plant Health and Plant Varieties and Seeds inspectors. By working more proactively with seed producers, growers and importers/exporters we aim to strengthen UK risk mitigation and resilience against crop and plant pests and diseases.

Development and Management of Globally Important Capabilities, Facilities, Collections and Data Sets

“Our capabilities, resources and processes extend beyond our own activities and enable us to provide a global advisory capacity to others.”

REGULATION, POLICY AND RISK – OBJECTIVE 16

We will:

- Look for new opportunities for innovative exploitation of the Sand Hutton site and to develop the site as a Strategic Innovation Hub.

RESEARCH AND ASSURANCE – OBJECTIVE 17

We will:

- Provide a portal for data and information on agriculture and the environment. Working closely with data owners within Defra and other government departments to maximise the use of these data sources to support policy, stakeholder engagement, research collaboration and industry.
- Actively consider closer working (including mergers) with other public sector organisations that would compliment and broaden our current expertise and activities.

RESPONSE AND RECOVERY – OBJECTIVE 18

We will:

- Integrate the facilities and expertise in storage issues into national contingency planning.
- Expand international consultancy by developing a more comprehensive service offering by fully exploiting the synergies of integrating GDS.

Development and Management of Globally Important Capabilities, Facilities, Collections and Data Sets

Fera operates world-class analytical laboratories, plant quarantine and grain storage facilities, animal welfare units, reference collections, unique data sets, and statistical and knowledge management expertise. Collectively, these facilities represent important resources for national contingency planning and for research and development in key policy areas.

WHAT WE WANT TO ACHIEVE IN DEVELOPMENT AND MANAGEMENT OF GLOBALLY IMPORTANT CAPABILITIES, FACILITIES, COLLECTIONS AND DATA SETS

Objective 16: Demonstrate and promote the value and relevance of both our and others' assets and resources.

Our intention is to ensure that the world-class facilities, expert staff and the information that we hold is a resource which can be exploited more widely than just within Defra. In order for our science to add maximum value, Fera needs to actively promote what we do and what we have. For example, we own and operate the only two mobile bird-detecting radars available for civilian use in the UK, allowing us to produce unrivalled and impartial data on bird movements across proposed development sites. Combining these data with bird management expertise means we can guide developers and urban environment managers towards minimal impact solutions.

Objective 17: Develop and exploit information and knowledge resources in partnership with stakeholders e.g. to facilitate knowledge transfer to industry and to inform future policy and science questions.

As trade and services become more global in nature there is an increasing emphasis on the negotiation and implementation of International standards for the safe movement of plant and animal material and foods. As a consequence there is frequently a requirement for International consultancy to facilitate the transfer of technological and inspection expertise. Fera intends to respond to this challenge by increasing our level of activity in this area with a more comprehensive service offering, and by working more collaboratively with our stakeholders and partners.

Objective 18: Ensure Fera resource is recognised as part of wider UK and International expertise in order to improve response and recovery capacity and capability.

Emergency scenarios require rapid assessment to identify the risks involved and the most effective action to manage or resolve those risks. Fera's specialist analytical skills, the integration and statistical manipulation of large data sets, and the exploration of scenarios and implications means that we are well-placed to make a valuable contribution to the UK's emergency response capacity and capability. By working more closely with our government partners responsible for dealing with emergency response situations, we need to ensure that the important contribution that Fera can make in this area is fully recognised and valued.

5 Sustainability

As with all Public Sector Research Establishments, the key challenge for Fera will be to secure a long-term sustainable future – sustainable in terms of a secure financial footing, an economical and efficient infrastructure and a critical mass of scientific expertise. In order to meet this challenge, Fera will need to focus on the following organisational and operational targets in addition to its key objectives.

FINANCIAL ROBUSTNESS

- Realise the benefits of creating Fera – direct financial savings as a result of rationalising York and Cambridge sites and potential for further operational efficiencies in back office functions as the organisational model, and integration of GDS, beds down.
- Establish strategic partnership agreements with our government customers – financial robustness of the agency will be underpinned by partnership agreements with Defra and other government customers to ensure a 'no surprises' approach to funding and ongoing investment.
- Grow commercial income (income projections provided at Annex B) – income growth as a result of more proactive marketing of Fera's commercial service offering, further exploitation of Intellectual Property (IP), and new opportunities created by bringing new disciplines and functions within the agency (GDS and PHSI).

ECONOMICAL AND EFFICIENT INFRASTRUCTURE

- Improve space utilisation – reducing infrastructure costs by exploiting 1500m² of spare laboratory capacity and working with York University to take forward a joint proposal for a Regional Innovation Hub on the Sand Hutton site.
- Develop fit-for-purpose Corporate Services – working more closely with Defra to influence the direction of its Corporate Services strategies (E-nabling IT, Shared Services and Sustainable Built Environment and Workplace Support) and thereby ensure that Fera has a range of corporate service options that offer value for money and meet our business needs.
- Reduce carbon emissions – planned reductions in energy usage, water and waste to reduce carbon emissions in line with government targets.

CRITICAL MASS OF SCIENTIFIC EXPERTISE

- Implement a new Organisational Design model (model provided at Annex C) – structured around programmes of work rather than science disciplines, the new model promotes better cross-group working, flexible and responsive use of resources and more specialist career progression.
- Develop a more flexible staff reward package – working with staff, Fera will develop a more flexible reward package which recognises that individuals are motivated differently. This will help to attract and retain a high calibre of scientists, technicians and support staff.

ANNEX A – Defra’s Departmental Strategic Objectives

- **A society that is adapting to the effects of climate change, through a national programme of action and a contribution to international action**

Cutting greenhouse gas emissions is a priority. But some climate change is now inevitable and all of us – as individuals, businesses, government and public authorities – will need to adapt to respond to the challenges of climate change.

- **A healthy, resilient, productive and diverse natural environment**

To protect and enhance the natural environment, and to encourage its sustainable use within environmental limits.

- **Sustainable, low carbon and resource efficient patterns of consumption and production**

Working towards an economy where products and services are designed, produced, used and disposed of in ways that minimise carbon emissions, waste and the use of non-renewable resource. Supporting innovation and encouraging economic prosperity.

- **An economy and a society that are resilient to environmental risk**

This is delivered through ensuring that flooding and coastal erosion risks are managed sustainably, through the economy, human health and ecosystems being protected from environmental risks and emergencies, and through public health and the economy being protected from animal diseases.

- **Championing sustainable development**

Defra is the government’s champion for sustainable development – domestically and internationally. Ensuring that policy and delivery at all levels of government observe the five principles of sustainable development set out in the 2005 SD strategy ‘Securing the Future’.

- **A thriving farming and food sector with an improving net environmental impact**

Making the farming industry more innovative, self-reliant, profitable and competitive and with better environmental management throughout the whole food chain.

- **A sustainable, secure and healthy food supply**

Working across government and with stakeholders for sustainable production, distribution and consumption of food, ensuring that it is available and affordable for all sectors of society, and considering the sustainability impacts of meeting global food needs.

- **Socially and economically sustainable rural communities**

Taking an overview of the effects of government policies in rural areas and helping departments understand better the rural dimension, including by improving the evidence base.

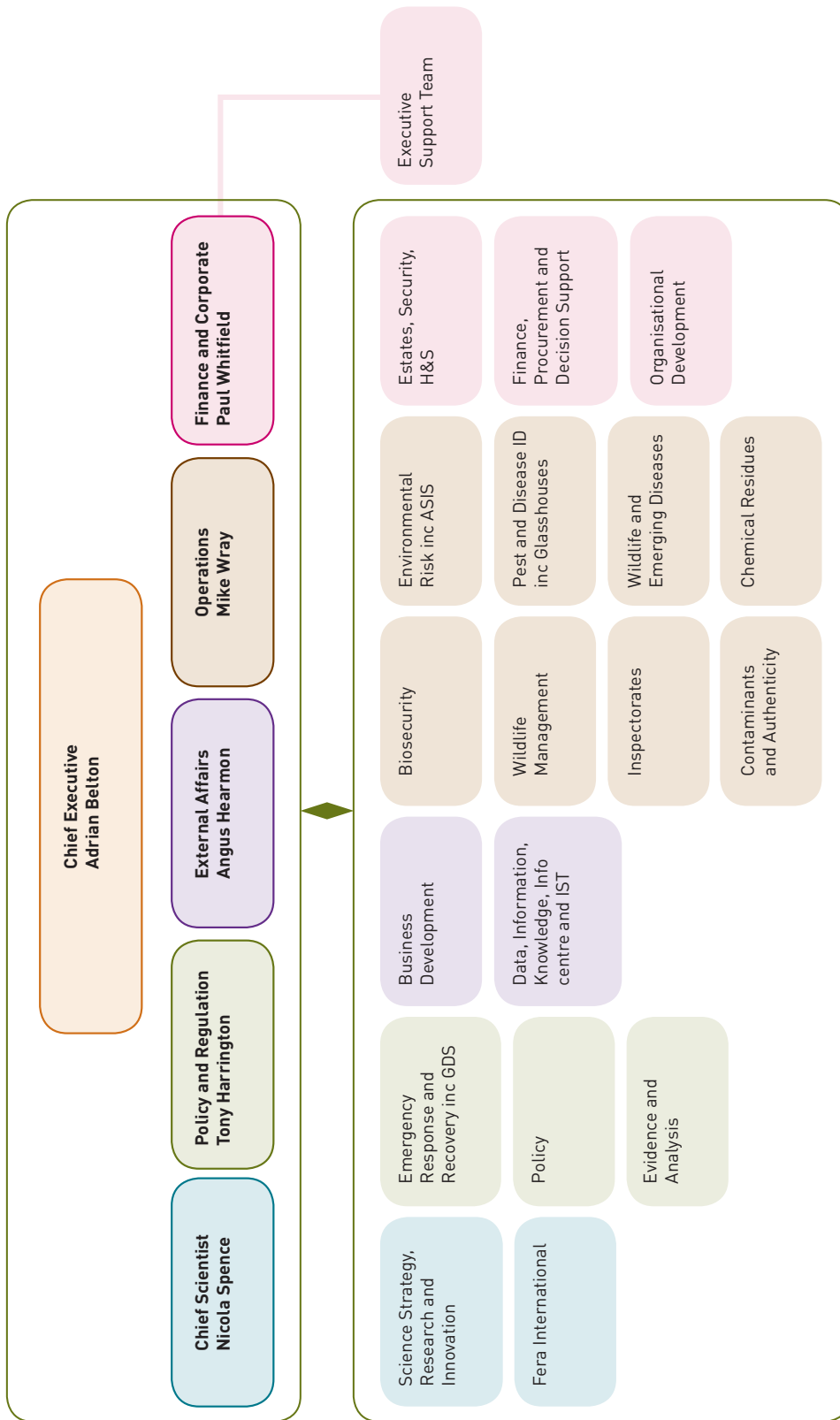
- **A respected department delivering efficient and high quality services and outcomes**

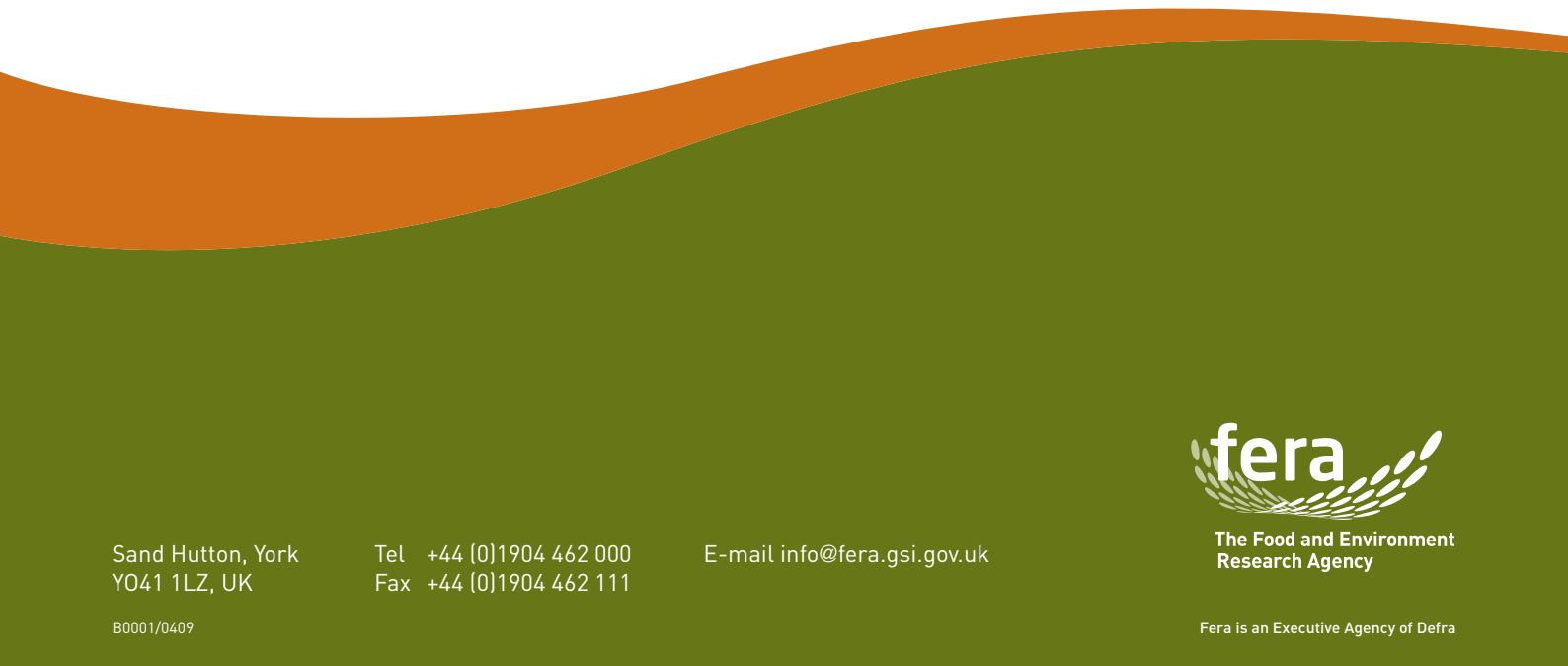
Respect is gained and maintained in the long-term by doing the day-job well, developing and delivering good policy through DSOs 1 to 8. But it’s also lost easily by messing up in any of our policy areas: policy, delivery or corporate.

ANNEX B – 3 Year Financial Projections

	2009/10				2010/11				2011/12			
	CSL	PHD	PHSI	PVS	GDS	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Income and Expenditure												
Income												
Defra												
Programme – current	11.0	11.9	3.8	2.2	3.4	32.3	32.3	32.3	32.3	32.3	32.3	32.3
Programme – Cross-units	7.2	-9.1	2.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Infrastructure	13.4	0.0	0.0	0.0	0.0	13.4	13.6	13.9	13.6	13.9	13.6	13.9
Other	0.8	0.3	1.7	0.0	0.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Total Defra	32.4	3.1	7.5	2.1	3.4	48.5	48.7	49.0	48.7	49.0	48.7	49.0
Non-Defra												
Other Gov't Departments	4.1	0.0	0.0	0.0	0.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Food Standards Agency	2.1	0.0	0.0	0.0	0.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
EU	2.4	0.0	0.0	0.0	0.0	2.4	2.5	2.5	2.5	2.5	2.5	2.5
Commercial	11.0	0.0	1.6	2.3	0.0	14.9	15.6	16.2	15.6	16.2	15.6	16.2
Total Non-Defra	19.6	0.0	1.6	2.3	0.0	23.5	24.3	25.0	24.3	25.0	24.3	25.0
Total	52.0	3.1	9.1	4.4	3.4	72.0	73.0	74.0	73.0	74.0	73.0	74.0
Expenditure												
Pay	18.9	0.6	6.7	0.9	1.2	28.3	29.0	29.7	29.0	29.7	29.0	29.7
Indirect	4.9	0.0	0.0	0.1	0.2	5.2	5.2	5.1	5.2	5.1	5.2	5.1
Subcontractors	1.9	2.2	0.6	3.1	0.9	8.7	8.8	8.9	8.8	8.9	8.8	8.9
Direct	5.9	0.0	0.0	0.0	0.2	6.1	6.2	6.3	6.2	6.3	6.2	6.3
Capital Charge	7.4	0.0	0.0	0.0	0.0	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Accommodation	9.3	0.3	0.7	0.2	0.1	10.6	10.7	10.9	10.7	10.9	10.7	10.9
Depreciation	1.5	0.0	0.8	0.1	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Other	2.2	0.0	0.3	0.0	0.8	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Total	52.0	3.1	9.1	4.4	3.4	72.0	73.0	74.0	73.0	74.0	73.0	74.0
Net Surplus (Deficit)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nos of Staff (FTE)												
Direct	532.0	11.4	156.7	20.4	23.0	743.5	741.0	737.5	741.0	737.5	741.0	737.5
Indirect	131.0	0.0	1.2	5.1	5.0	142.3	137.3	132.3	137.3	132.3	137.3	132.3
Total	662.0	11.4	157.9	25.5	28.0	885.8	878.3	869.8	878.3	869.8	878.3	869.8
Income per Direct (£k)	97.7	271.9	58.1	215.7	147.8	96.8	98.5	100.3	98.5	100.3	98.5	100.3
Non-Defra	36.8	0.0	10.2	112.7	0.0	31.6	32.8	33.9	32.8	33.9	32.8	33.9

ANNEX C – High Level Organisational Design





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