



Cefas

Centre for Environment,
Fisheries & Aquaculture Science

ANNUAL REPORT AND ACCOUNTS 2009–10

Centre for Environment, Fisheries & Aquaculture Science Annual Report and Accounts 2009–10

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Resource Accounts and Annual Report presented to the House of Lords by Command of Her Majesty

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MANAGEMENT
COMMENTARY

01

INTRODUCTION

I am delighted to be able to report another very successful year for Cefas in which we have achieved all of our ministerial targets, delivered a strong financial performance and applied our expertise to tackle important societal issues. This success has only been possible because of our highly motivated and talented staff. I would like to take this opportunity to thank everyone in Cefas for their performance and commitment throughout another demanding year.

A central element of our strategy has been to diversify our income streams, reflecting opportunities to apply Cefas' capabilities more widely across the public sector and beyond. Consistently high levels of customer feedback across our full portfolio are encouraging, together with our ability to sustain levels of competitively won income from non-core Defra sources in difficult market conditions: this was £18.6 million last year, having risen from £10.2 million in 2006–07. As well as generating operational efficiencies, this substantial income growth over three years has enabled investment in our science, our systems and our people to prepare Cefas for a tough fiscal climate and to ensure long-term sustainability of our world-leading applied science.

Looking ahead, challenge and opportunity will undoubtedly lie in the juxtaposition of a growing need for marine evidence and a tightening financial environment. Our response includes fostering a closer collaboration across the wider Defra network to deliver efficiencies through new ways of sharing evidence collection and delivery. The innovative agreement we recently signed with the Joint Nature Conservation Committee is a practical example of progress: our partnership will enable cost savings and best use of complementary capabilities in each organisation.

The stories that follow highlight the unique breadth of our operations and our role as government's foremost source of marine evidence and impartial expert advice. Cefas is supporting government in areas that include: implementing the Marine and Coastal Access Act, managing risks for people and businesses, reforming the Common Fisheries Policy, delivering climate change adaptation and ensuring food security and safety.

The world is changing rapidly and to sustain our performance we will need to respond innovatively to evolving customer needs. Cefas' breadth and depth of technical expertise, ongoing efficiency improvements and highly engaged staff combine to provide an excellent starting point for our response. I am confident that Cefas will rise to the undoubted challenges ahead.



Richard Judge
Chief Executive

Our “flagship”, the RV *Cefas Endeavour*, logged 285 days at sea this year on scientific cruises, travelling a total of 38,840 nautical miles.



DELIVERING OUR PLANS

We play an integral role in securing healthy marine and freshwater environments, and the sustainable use of associated resources, to enable current and future generations to prosper.

PRINCIPAL ACTIVITIES

With many competing demands on the use of the sea, decision-making is complex, often international, and relies on timely, integrated evidence.

Cefas is the UK government’s foremost source of marine evidence and impartial expert advice. Our internationally renowned applied science helps to shape and implement policy, and to manage risks to the environment, people and businesses. Our primary focus is on supporting the sustainable management of UK inshore and shelf seas, and their associated resources. Our reach extends into adjacent freshwater and oceanic environments, and also includes wider-markets activity.

This strong focus on policy and societal outcomes makes us distinctive. Our uniqueness lies in our comprehensive, multi-disciplinary capabilities, coupled with our bridging of the policy/delivery/science interface. We are able to bring insights from collaborative relationships that range from the EU to industry, and that span geographical boundaries.

Current activities include supporting implementation of the Marine and Coastal Access Act, and ensuring UK leadership of, for example, Common Fisheries Policy (CFP) reform, climate change adaptation and food security/safety.

DELIVERING A SECURE FUTURE

All public services face pressing questions about their size, shape and cost. Cefas is no different. Investments over the past three years have made us more customer-focused, more flexible and more commercially orientated. With 35% of our contracts won in open competition, our services are demonstrably competitive.

The need for our services continues to grow, driven by a reliance on robust applied science and evidence to deliver effective and sustainable management of our seas. The recent Marine Act, a range of EU regulations and directives, and the government’s food, energy and sustainability agendas all generate demand.

In the year ahead, we will focus on activities that strengthen external focus, encourage innovation, increase resilience and reduce costs. These include:

- ▶ continuing to cement relationships across the Defra network, in particular ensuring mutual value from partnerships with the Marine Management Organisation (MMO) and the Joint Nature Conservation Committee (JNCC)
- ▶ delivering efficiency savings by implementing new business systems and processes, together with continued diversification of revenue streams
- ▶ investing in our science, people and facilities to deliver short-term benefits and to sustain longer-term improvements in delivery.

We will ensure that Cefas remains resilient, delivering exceptional value to our partners and customers through our high-quality, relevant scientific capability. As an integral part of delivering the UK government’s sustainability and marine agendas, we will continue to make a difference for society and to be a vibrant place where outstanding people want to work.

“ OUR VISION IS TO MAKE A REAL DIFFERENCE FOR SOCIETY AS RECOGNISED LEADERS IN MARINE AND AQUATIC SCIENCE. ”



Huw Irranca-Davies MP meets staff in March 2010. Cefas services supporting Defra and the MMO were the topic of the day.



MANAGING DELIVERY, MEETING TARGETS

Cefas was created on 1 April 1997 from the former Directorate of Fisheries Research under the Next Steps programme. As an executive agency of the Department for Environment, Food and Rural Affairs (Defra), Cefas is fully accountable to Parliament through ministers.

GOVERNANCE ARRANGEMENTS

For the period of this report Huw Irranca-Davies MP – Parliamentary Under-Secretary of State (Minister for the Natural and Marine Environment) – was empowered to act on behalf of the Secretary of State for Defra on all ownership matters relating to Cefas. He set annual performance targets for the agency, agreed corporate business plans, and nominated a “Corporate Owner” within Defra to discharge his ownership responsibilities.

The Corporate Owner takes into account Cefas’ strategic fit with that of Defra’s own plans, agrees any Defra-funded investment decisions, and ensures that Cefas’ risk profile is acceptable to the department. Members of the Defra Management Board remain collectively responsible and are accountable to ministers for Cefas’ delivery.

Governance arrangements are described in more detail in the *Cefas Framework Document* (which is available to download from our website: www.cefas.co.uk) and in the Statement on Internal Control (see p 44).

THE CEFAS MANAGEMENT BOARD

Cefas’ Chief Executive and Accounting Officer is Richard Judge.

The Cefas Management Board (CMB) membership balances executive and non-executive directors. It includes the Chief Executive, and the following Cefas executives:

- ▶ Tim Green, Finance and Corporate Services Director
- ▶ Mike Waldoock, Operations Director.

Non-executive Advisory Directors:

- ▶ Andrew Field (external)
- ▶ Sue Sharland (external; from 1 January 2010)
- ▶ Michael Gates (external; from 1 January 2010)
- ▶ Hugh Walker (until 31 December 2009)
- ▶ Alex Tweedie (until 31 December 2009)
- ▶ Joe Horwood (internal).

FUNCTIONS OF THE CEFAS BOARD

The CMB’s principal functions are to:

- ▶ determine Cefas’ strategy (taking account of government needs and broader market dynamics), allocating resources accordingly and monitoring progress against strategy
- ▶ ensure effective corporate governance and management of business risks
- ▶ ensure continued growth in capability
- ▶ ensure appropriate focus on the external world and the context within which Cefas operates
- ▶ reinforce cultural change and Cefas’ values through its own behaviour
- ▶ advise the Chief Executive
- ▶ approve Cefas policy on strategic matters at the discretion of the Chief Executive.



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“ SECURING HEALTHY MARINE AND FRESHWATER ENVIRONMENTS IS VITAL FOR EVERYONE’S WELL-BEING, HEALTH AND PROSPERITY. ”

THE AUDIT AND RISK COMMITTEE

The Audit and Risk Committee (ARC) is a formally constituted committee of the CMB. The committee is chaired by an external independent member and includes two further external independent members. Internal and external auditors and executives attend the meetings to report, with others attending as required by the committee. The ARC considers and provides advice to the Chief Executive on the strategic processes of risk management, internal controls, governance and the Statement on Internal Control. In particular, the committee reviews:

- ▶ the reports from internal and external auditors, and management response to recommendations
- ▶ the structures, processes and responsibilities for identifying, managing and mitigating key risks facing the organisation
- ▶ the policies for ensuring compliance with relevant regulatory, legal and code-of-conduct requirements.

Meetings are held not less than four times per year in accordance with an annual schedule that includes oversight of *Annual Report and Accounts*.

PERFORMANCE MANAGEMENT

Cefas' performance against its ministerial targets is regularly and routinely measured against key objectives set by the CMB, creating a framework of management control to continually improve performance. In summary, the key processes within that framework are:

- ▶ **performance cycle:** the organisation's vision is clearly established and publicised. All subsequent strategy, business plans, set objectives and training plans are designed to support the vision.
- ▶ **business planning and prioritisation:** a five-year strategy and a more detailed annual budget are set before the start of each year. Performance against these and additional targets is reported to and reviewed monthly by the CMB.
- ▶ **key performance indicators:** these are reported against monthly. They link to the key strategic aims and to the management of key risks. Such indicators are both robust, to ensure comparability, and flexible, to adapt to changing needs.
- ▶ **rewarding performance:** good performance is recognised through internal publicity; celebrated through, for example, civil service-wide Team Awards; and rewarded through performance-related pay (PRP), which explicitly links payment and performance. The latter includes a variable

corporate element – linked to the achievement of ministerial targets and the growth of non-Defra contract margins – and an individual element that reflects exceptional personal contribution. The total budget for PRP potentially rises to approximately 5% of Cefas' base salary bill. Any payment is subject to Cefas' audited performance and, ultimately, to any wider government instructions.

- ▶ **improving performance:** plans and objectives are regularly updated to improve performance. Surveys and other engagement of customers and staff are conducted to input to this process.

OUR TARGETS AND STANDARDS

The Cefas business plan and associated ministerial targets are reviewed each year to ensure they continue to be relevant to the agency and support broader government objectives and agreements, and Cefas' ambitions. For example, the inclusion of health and safety (H&S) actions in a social responsibility target reflects our intention to reach standards that go well beyond compliance. Our ministerial targets are announced in the House of Commons and audited by Defra at the end of each financial year.

Our service standards and key policies are described on our website. This year, 100% of letters and emails had a response within 15 working days, and all visitors to our laboratories were met within ten minutes of their arrival. One complaint was received during the report period, relevant to the Cefas Charter.

PERFORMANCE AGAINST MINISTERIAL TARGETS

SERVICE DELIVERY

CUSTOMER SATISFACTION TO EXCEED 82%

To provide a high standard of services to the satisfaction of customers. Measured through weighted average of customer response to post-contract survey that covers seven aspects of service quality. Incorporates project delivery metrics.

2009–10 Outturn: Target achieved: 88%
2008–09 Target achieved
2007–08 Target achieved

SCIENCE QUALITY INDICATORS TO EXCEED 75%

To enhance scientific capability and reputation, using indicators grouped around research, wider dissemination and use of our science, and scientific capability. Measures include customer surveys, numbers of peer-reviewed scientific papers and investment in new science.

2009–10 Outturn: Target achieved: 92%
2008–09 Target achieved
2007–08 Target achieved

VALUE FOR PUBLIC MONEY

RECOVER THE FULL COST OF OUR SERVICES

To demonstrate financial sustainability through sound operational financial management and appropriate investment in Cefas' future, including the delivery of Cefas' transformation plan. Measured through achieving an audited break-even result in 2009–10.

2009–10 Outturn: Target achieved
2008–09 Target achieved
2007–08 Target achieved

EFFECTIVENESS GAINS

To deliver £0.5 million of effectiveness gains, generated through a combination of non-Defra income growth, improvements in project effectiveness and reduced overhead costs.

2009–10 Outturn: Target achieved
2008–09 Equivalent target achieved
2007–08 Equivalent target achieved

CAPACITY AND CAPABILITY

SUSTAINABILITY INDICATORS TO EXCEED 75%

To demonstrate a healthy and safe working environment, together with progress towards being an exemplar for sustainable development, through a range of indicators.

2009–10 Outturn: Target achieved: 81% ¹

STAFF SATISFACTION SURVEY TO EXCEED 65%

To respect and help the agency's people to develop. Measured by an annual questionnaire to staff, using a weighted scale for the eight survey categories.

2009–10 Outturn: Target achieved: 69%
2008–09 Target achieved
2007–08 Target achieved

¹ Target is new for 2009–10 so previous years' achievement cannot be given.

Our scientific evidence on the effects of seabed disturbance is contributing to impact assessments of major construction projects such as offshore windfarms and the Fehmarn Belt fixed link bridge (visualised right), which will link Denmark to Germany.



CEFAS SCIENCE

MAKING OUR CONTRIBUTION

The need for high-quality applied marine science has never been clearer. As the range of human activity impacting on the UK's coastal seas widens, fundamental questions about how ecosystems respond to these challenges are raised. Cefas is uniquely placed to contribute to understanding the cumulative effects of combined activities, and how the UK addresses the potential tensions between use of its natural resources and conserving biodiversity.

A KEY ROLE IN NEW POLICY-MAKING

The completion of the legislative process turning the Marine Bill into the Marine and Coastal Access Act in November 2009 marked the start of a significant change to the way that the range of demands on the marine environment will be handled in the UK. The new Act requires the formation of the Marine Management Organisation (MMO) to focus on delivery, while Defra continues to provide the policy direction with Cefas as the leading provider of the evidence bases for decision-making.

This has also been a year in which the government's Marine Science Co-ordination Committee started to develop detailed plans for the UK Marine Science Strategy, a 15-year strategy to deliver world-class marine science which will inform decisions on food and energy security, managing the seas sustainably and climate change. Cefas is supporting the priority tasks of aligning science to the strategy, setting priorities for long-term monitoring and improving science communication.

PROVIDING THE OVERALL ASSESSMENT

The launch of *Charting Progress 2*, a fully comprehensive assessment of the current state of our seas and observations of trends over the last five years, will happen later in 2010. This will form the baseline assessment of environmental status for the Marine Strategy Framework Directive (MSFD), which requires all EU Member States to bring the quality of our coastal seas into "Good Environmental Status" (GES). Cefas is currently working with Defra to define future monitoring requirements to meet the needs of the MSFD in such diverse areas as biodiversity, eutrophication, marine litter and underwater noise. Nine Cefas experts have been invited by the EU Joint Research Centre and the International Council for the Exploration of the Sea (ICES) to define the way in which GES standards are set.

BUILDING EVIDENCE IN PARTNERSHIP

The more evidence we have, the more we can be sure about predictions and the less precautionary we need to be in making decisions. Our interdisciplinary approach of high-quality imaging, geochemistry, habitat mapping, and modelling at the hydrodynamic and ecosystem level allows us to overlay and integrate data and to reduce risk in decision-making. Cefas is working with the wider Defra network to fully integrate our evidence base and make the best use of our research vessel, RV *Cefas Endeavour*.

As resources get tighter and the task of delivering science and strategic planning for the future becomes ever more complex, we are driving towards partnership roles with other organisations. Working as part of the UK marine monitoring and assessment strategy (UKMMAS) we have combined our efforts with those of the Environment Agency, Natural England and the Joint Nature Conservation Committee (JNCC) to deliver "joined-up" evidence of ecosystem interactions.



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INFORMING THE POLICY CYCLE



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Cefas’ focus with Defra is to advise on the effectiveness of current policies and regulations, and to support the development of new policy. The cycle of reviewing and refining this approach to regulation has been part of Cefas’ core mission for more than 100 years. We aim to work with policy-makers and industry to understand how the UK can reduce the regulatory burden but still provide the effective management of resources. Cefas’ science also helps others to judge the appropriateness of regulations, and can make a real difference to their impact on the society and economy of the UK.

INFLUENCING DECISION-MAKING

In a recent decision concerning eutrophication (adverse effects on the environment due to the input of excess nutrients to the sea), evidence from Cefas was pivotal in a European Commission (EC) judgment. We provided the scientific evidence that helped the UK win an important case in the European Court of Justice (ECJ).

The EC’s contention was that nutrients (nitrogen and phosphorus) should be removed from wastewater discharged to estuaries, to improve the quality of the water. Our evidence showed that removing these nutrients would not improve conditions for estuarine plants and animals. Our observations on the condition of the water bodies and our use of models to show how they would – or would not – be affected persuaded the ECJ to find in the UK’s favour. This was a crucial verdict: the cost of removing the nutrients would have been several billion pounds, with no benefit to the environment. These costs would have been added to the charges made by water companies to water users.

HELPING TO SHAPE THE COMMON FISHERIES POLICY

In 2009, the EC published a Green Paper to initiate debate on the reform of the Common Fisheries Policy (CFP). Cefas was closely involved in two collaborative EU-funded projects that informed this debate: a review of bio-economic models, and an analysis of rights-based management instruments – the means by which fishing rights are allocated to fleets or communities – within the EU.

Bio-economic models provide a way of linking scientific fisheries advice with economic considerations, in recognition of the fact that fisheries have a social as well as an environmental dimension. This was reflected in the study of rights-based management approaches, as establishing appropriate ownership rights to a resource can make an important contribution to sustainable and economically viable fisheries. The studies' results were well received by the Commission, which will use them to help frame future policy. As well as being influential in shaping the future of the CFP, both studies also helped to raise the profile of fishery economics at Cefas.

ADVISING AND HELPING WITH IMPLEMENTATION

The Aquatic Animal Health (England and Wales) Regulations 2009 brought in fundamental legislative change relevant to a large number of stakeholders across England and Wales – many of whom were not previously regulated. The Fish Health Inspectorate (FHI), based at Cefas, advised senior policy-makers to ensure the new legislation was fit for purpose and not unduly burdensome to industry. The FHI team also sent document packs to more than 600 aquaculture businesses, each tailored to their individual activities, and registered over 3,500 put-and-take fishery applications, creating the first comprehensive and validated register of fisheries in England and Wales. Praise from the industry endorsed the Cefas approach: "The regulations are a step in the right direction for cleaning up the industry...The implementation has gone well and the impact on my business has been nowhere near as bad as I previously envisaged."



WORKING WITH FISHERMEN TO REDUCE DISCARDS

Regulation is not the only way to assure a sustainable future. Discarding in commercial fisheries is widely acknowledged as a waste of natural resources, disruptive to marine ecosystems and ethically undesirable. The UK Devon-based beam-trawl fleet has had one of the highest discard rates of English and Welsh fisheries in recent years.

The Cefas-led "Project 50%" brought together fishermen from the Devon beam-trawl fleet and Cefas scientists in an innovative working collaboration, taking positive action to address the discarding issue.

Imaginative approaches and techniques rarely used in fisheries science, but widely adopted in social marketing, were used to overcome many of the barriers and impediments to reducing discards. Local fishing crews and netmakers were asked to take the lead in designing, producing and trialling new nets that allowed more juvenile fish and small marine creatures to escape capture, and multimedia coverage helped to publicise the increased sustainability of the catches made by the vessels trialling the new nets. Latest estimates (March 2010) indicate that discarding by participating vessels was reduced by more than the target 50% – a target many industry experts had previously considered unrealistically high.

A well-attended launch event held in Exeter in December 2009 (see also p 30) was a great success, and gave us an opportunity to both present the overall results and thank fishermen for taking part in the trial. The goodwill this has created will be important in recruiting other fishing communities to future trials.

One of the beam-trawl crews that took part in Project 50%, which aimed to increase ownership by fishermen of the positive steps that could be taken to reduce discards.

ACHIEVING THE RIGHT BALANCE



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As more of the sea’s resources are required, maintaining the equilibrium between use and conservation requires careful planning. Cefas has invested in the development of new planning tools, resource activity maps and technology that will help ensure judgments are transparent and underpinned by sound evidence.

BETTER BASE MAPS FOR DECISION-MAKING

Recent developments in acoustic technologies (sonar imaging) offer insights and opportunities to explore and map the seafloor at high resolution. Acoustic techniques provide a means to conduct wide-scale reconnaissance surveys required for regional spatial planning and environmental management. Cefas has a multi-disciplinary team (see panel, facing page) of scientists experienced in the analysis and interpretation of multiple data layers within geographical information systems (GIS), enabling geo-spatial data to be presented as maps. These maps can be interrogated to provide information on seabed status for diverse purposes and users.

We have been actively involved in the critical evaluation of an array of “state-of-the-art” seabed mapping techniques. Our involvement in a wide range of mapping projects has allowed us to produce guidelines to advise on the cost-effectiveness and application of tools for environmental management, monitoring and advisory work.

PROVIDING THE PLANNING TOOLKIT

As part of our support for the transition process of the Marine and Fisheries Agency (MFA) to the new Marine Management Organisation (MMO) in April 2010, Cefas has been working to provide advice, data and tools to support the innovative ways in which the marine environment will be managed. We provided Defra with data and advice to support the consultation exercise on the creation of marine planning areas, and developed a set of prototype tools to assist the MMO in practical decision-making within the planning and licensing processes.

The planning tools are embedded within a GIS and assist in the mapping of human pressures on the marine and coastal environment, the assessment of cumulative impacts of those pressures and the identification of conflicts of use. By working closely with MMO planning staff during the coming months we will be able to identify the limitations of these tools, understand and advise on additional functionality and data required within the planning process, and help to ensure that marine planning achieves set objectives.

EFFECTS OF NOISE POLLUTION ON FISH

The drive for increased use of renewable energy poses new questions about impacts. Little is known, for example, about the effects on fish of sound generated by offshore construction projects. Many fish have good hearing and use sound to orientate themselves in the environment, to find food and mates, to avoid predators and even to communicate. The growing number of offshore wind farms is adding to underwater noise levels, especially during construction when piles are hammered into the seabed, generating noise that is not only loud but travels over large distances.

During the year Cefas completed a research project investigating the effects of pile-driving noise on cod and sole behaviour. Field experiments were carried out in large net cages in a quiet bay in western Scotland, where the fish were exposed to underwater recordings of pile-driving noise at a range of volumes. Although the noise levels were comparable with pile-driving at a distance of several kilometres, the fish showed clear behavioural responses. The results of the study will guide regulatory advice and the implementation of mitigation measures in the construction of offshore wind farms in UK waters.

TAGS PROVIDE NEW DATA ON CRAB BEHAVIOUR

Aggregate extraction is another use of marine resources that can affect animal behaviour and conflict with other activities, such as shellfisheries. Cefas is increasingly using technology to help to understand animal behaviours and resolve potential issues. For the first time, data storage tags (DSTs) have been fitted to edible crabs in the English Channel and Celtic Sea. These tags, developed by our in-house Electronics Design unit, provide near-continuous logging of time, depth and temperature, enabling scientists to estimate the location of tagged crabs.

Tag returns show westward movement of mature female crabs, and a lack of activity in winter and spring consistent with egg incubation. These important new data on the timing and duration of incubation and the location of spawning will significantly improve the quality of scientific advice underpinning the sustainable management of crab fisheries, and enhance marine spatial planning in areas where aggregate dredging and other seabed uses may overlap with sites where female crabs incubate their eggs.



TARGETING HABITAT PROTECTION

The coastal and inshore waters of the UK are some of the busiest in Europe, yet less than 10% of the seabed that surrounds our islands has been surveyed to modern standards. Cefas' Habitat Mapping team draws together expertise in marine geology, biology, oceanography and sedimentology, combining traditional techniques such as sampling with analysis of remote-sensing information from boats and satellites to create remarkable new visualisations of the marine landscape and insights into the life it supports. Thousands of depth soundings collected by the RV *Cefas Endeavour* are collated to enable 3D mapping and the identification of biodiversity "hotspots" such as the sabellaria reefs off the East Anglian coasts, which provide a habitat for a host of marine organisms such as shrimps, crabs and starfish. Bringing together biological and physical science in our mapping techniques allows marine protection for sensitive areas to be as targeted and effective as possible.

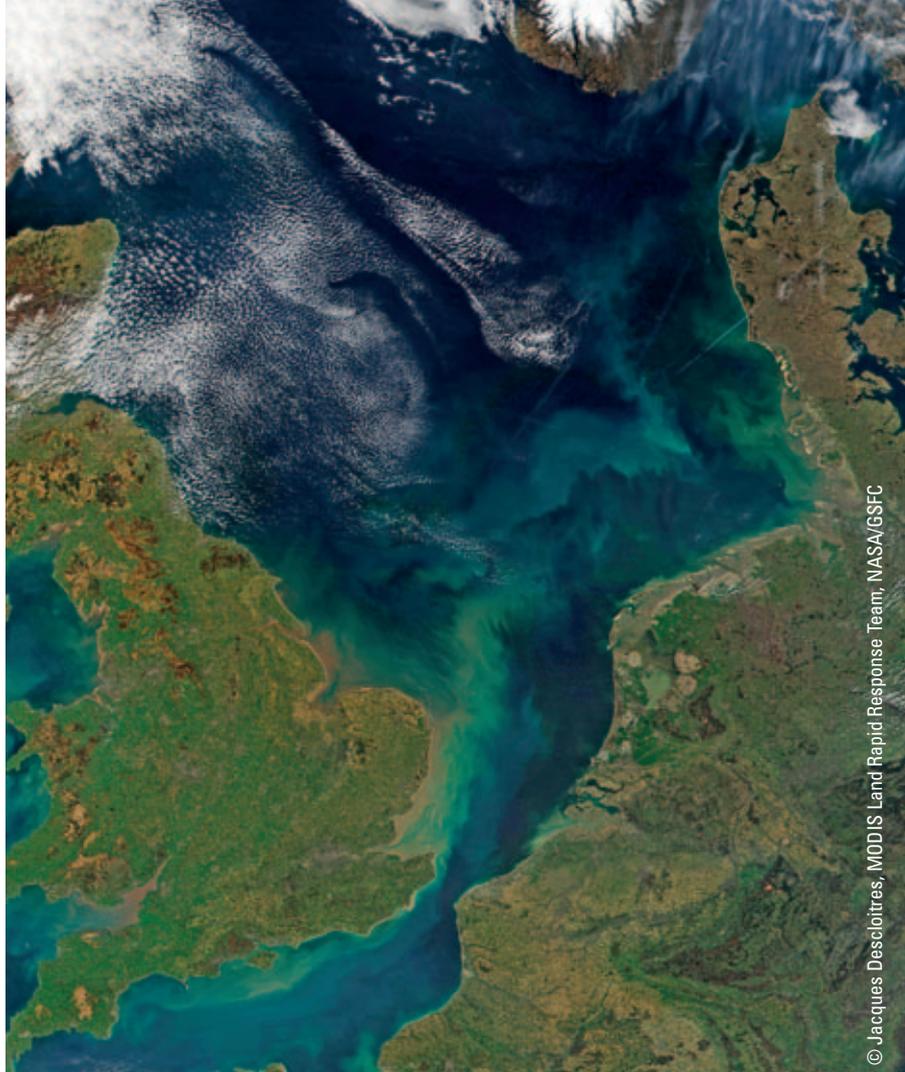
PEOPLE IN CEFAS

Marine geologist Christian Wilson of the Habitat Mapping team works both at our Lowestoft facility and on board the RV *Cefas Endeavour*. A key challenge of his work is to detect physical changes to the seabed – such as sediment movement – that could affect its biology. "I find it remarkable that I can take part in true exploration a mere stone's throw from the coast," he says. "We are guaranteed to find something new every time we go out."

“ THE MARINE ENVIRONMENT REMAINS ONE OF THE FINAL FRONTIERS FOR HUMAN KNOWLEDGE. ”

Christian Wilson, Cefas' Habitat Mapping team

INTEGRATING EVIDENCE FOR BETTER ASSESSMENTS



The drive for better evidence, increased collaboration and sharing of data is one of the cornerstones of the new UK marine strategy for science, recently launched by the Marine Science Co-ordination Committee. Making more and better observations using less resource has driven our investment portfolio for a number of years, and partnership working, the use of new technology and integrating data from different sources underpin our ability to provide better assessments of the impact of human activity on the marine ecosystem.

WORKING IN PARTNERSHIP

There is increasing interest in our ability to undertake broad-ranging and flexible monitoring, collecting data for a number of biological and environmental characteristics to determine the health of our seas. The recent deployment of an autonomous monitoring system, the FerryBox™, on the RV *Cefas Endeavour*, new water samplers for our data-collecting SmartBuoys and the continuous plankton recorder are examples of our increasing use of technology to help observational science. The data streams now delivered from these devices are immense.

We work co-operatively with many government institutions and agencies – for example, the Joint Nature Conservation Committee (JNCC) – to share data and information on the marine environment. Recently, we have been developing closer links with Natural England, jointly looking at ways to enhance the monitoring of existing and potential Marine Protected Areas. Much of this monitoring is inshore, but some components are sufficiently offshore to warrant the need for a vessel of the *Endeavour's* capabilities. Through such collaborative arrangements, we aim to ensure UK national monitoring commitments are delivered in a cost-effective manner.

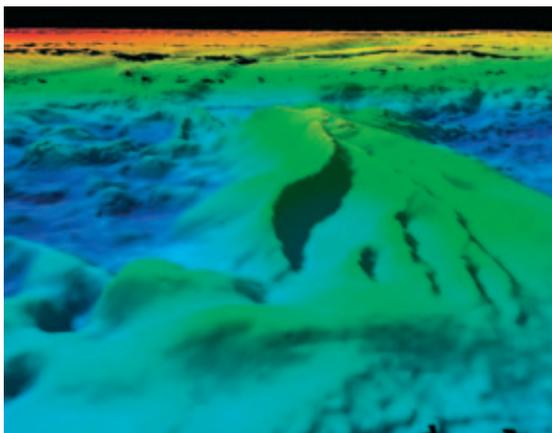
INTEGRATING ENVIRONMENTAL MONITORING

Greater integration of our field sampling allows us to provide a more efficient survey programme and to support data and evidence needs across government. We have entered into partnership with the JNCC to support their environmental surveillance and monitoring programme using the RV *Cefas Endeavour*.

To investigate the practicalities of integrated monitoring in the field, plans for a Cefas groundfish survey were modified to include a number of additional activities normally carried out at separate times, focused on water chemistry and biodiversity-related monitoring activities (sea floor imagery and seabird/mammal observation). The purpose was to test and address the logistics surrounding multi-disciplinary offshore surveys, and other areas where practical progress could be made. The project also enabled all data to be uploaded to the EMECO website (see right) to enable scientists to manipulate and view data in near-real time. This data tool allows a visual integration of geodata sets with many others already held within the software, including those from our routine fisheries surveys.

The experience gained through this exercise is being shared with other Defra agencies that use vessels to monitor the marine environment, and a forthcoming report will indicate how such integrated approaches can help maximise the use of limited monitoring resources.

Combined marine data, displayed as a 3D image, helps decision-makers to visualise whole areas of the seabed.



INCREASING VALUE FOR MONEY

Remote sampling methods (so called “passive samplers”) are of particular interest where they can help to improve the cost-effectiveness of marine data collection. Cefas has been working with several organisations to provide baseline contaminant data and identify whether hazardous substances of concern, particularly those prioritised by the EC and OSPAR, are present in UK coastal and marine waters at levels likely to produce pollution effects. The programme will also provide an assessment of the potential use of passive samplers for future monitoring requirements within the Marine Strategy Framework Directive (MSFD), as well as helping to target future monitoring programmes for contaminants and the evaluation of what new measures might be needed.

A NEW NORTH SEA OBSERVATORY

One of our R&D projects with European partners, the European Marine Ecosystem Observatory (EMECO; www.emecogroup.org) allows us to make integrated assessments of data holdings from all over Europe – to provide, for example, an internationally agreed map of nutrients in the North Sea.

The EMECO Datatool is a suite of web-based tools that enable rapid integration and visualisation of multi-platform, multi-parameter, and multi-national data. The purpose of the Datatool is to deliver policy-relevant information products in a transparent and auditable manner that increase confidence in the outcome of formal environmental assessments at a regional scale.

Users are able to select and view data from novel and traditional monitoring platforms as integrated data sets, time-series charts, maps and bespoke assessment maps. OSPAR Greater North Sea and *Charting Progress 2* regional assessment maps are currently available. Data sources EMECO currently includes are ICES, our SmartBuoy and WaveNet programmes, and Cefas’ benthic data. The next version will provide satellite-derived chlorophyll and temperature data. Parameters include chlorophyll, oxygen, nutrients, temperature, salinity, benthic diversity and abundance indicators, and various wave measurements.

ENABLING FOOD SECURITY



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By protecting humans and aquatic animals from a range of hazards Cefas contributes directly to the safety and security of the UK food chain. Surveillance programmes sponsored by Defra and the Food Standards Agency (FSA) identify and monitor harmful micro-organisms (bacteria and viruses), toxins (such as algal biotoxins), and chemicals discharged in domestic and industrial effluents. Our work ranges from sanitary surveys of shellfish beds, the testing of shellfish biotoxins and inspection of fish farms, to emergency responses and world-class research into applied aspects of aquatic biology and ecology.

PROMOTING ENGLISH AQUACULTURE

A workshop involving senior officials from Defra and a range of stakeholders met in October 2009 at our Weymouth laboratory to discuss the development of an aquaculture policy for England. The meeting issued a strong statement emphasising that aquaculture could go a long way to supplying the fish and shellfish needs of the growing UK population and take pressure off heavily exploited wild stocks. The meeting's participants set up a small steering group to help develop policy towards a strong collaborative strategy aimed at growing the English aquaculture sector.

In addition, the Fish Health Inspectorate (FHI) organised a separate conference for the fledgling tilapia farming industry in Great Britain. This meeting had originally been planned simply to discuss a new disease issue, but the FHI used the opportunity to develop a more comprehensive programme, covering issues that included biosecurity, disease control, management of re-circulation systems, the use of YY males to improve yields, and the need for trade associations. Sponsorship was obtained to allow attendance by key players in these fields, and the event attracted 65 delegates, including a large percentage of UK tilapia farmers.

FISH VIRUS SEQUENCING

Rhabdoviruses, responsible for a number of serious and notifiable infectious fish diseases, pose a particular and growing threat to intensive aquaculture, and as the number of fish species farmed increases, so more of these viruses emerge. Our scientists have made significant progress on virus genome mapping using, for the first time, new-generation 454 sequencing technology. In partnership with Alistair Darby at Liverpool University, we generated a draft sequence for the complete genome of perch rhabdovirus (approximately 11,000 nucleotides). Sequence data, currently being assembled, were also produced for the complete genomes of grass carp, tench and eel rhabdoviruses. This work will provide invaluable information on, in particular, the genetic relationship between the vesiculo-type rhabdoviruses, responsible for diseases such as spring viraemia of carp, and will significantly reduce the time required to characterise new and emerging pathogens in the future.

SALMONELLA STANDARDS

Ron Lee, one of our leading microbiologists, undertook a review of international data on salmonella illness associated with bivalve molluscs, together with the prevalence of the bacteria in harvested and marketed products. The review was undertaken on behalf of the Food and Agriculture Office of the United Nations, and the resulting report was presented to the Codex Committee on Fish and Fishery Products to support negotiations on standards for salmonella in bivalves. On the basis of his report, it was decided not to follow earlier proposals for more stringent standards. The study helped to establish a better balance of risks for the benefit of both consumers and shellfish producers.



A major Cefas study for the UN investigated the risks posed by the accumulation of salmonella in filter-feeding bivalves.



NEW TOXINS IDENTIFIED IN SHELLFISH

Cefas has developed new methods to measure the presence of a novel toxin in shellfish from UK waters, thanks to the work of Steven Morris (left) and his team. Collaborative research with Marine Scotland on marine algae that naturally produce toxic compounds known as spirolides found “novel compounds not reported elsewhere”. These algae are ingested by mussels and oysters and, like other algal toxins, could potentially cause economic disputation to the shellfish industry should closures be required. While no harm to humans has yet been reported, the need to apply a robust reference method to measure these toxins and their occurrence was clear. It was found that liquid chromatography/mass spectrometry could more reliably be used to determine the family of toxins than existing techniques. Cefas has committed investment in state-of-the-art technology that will allow methods to be fully developed and rolled out to national monitoring programmes, should that be required.

PEOPLE IN CEFAS

With 16 years at Cefas, environmental research scientist Steven Morris used his worldwide connections with colleagues in his field to overcome obstacles to his team’s method validation work on toxins. “Working in partnership with the National Research Council of Canada, for example, enabled me to source toxin materials needed to complete the project.”

“WORKING WITH A TEAM OF DEDICATED, ENTHUSIASTIC AND QUALIFIED CEFAS SCIENTISTS HAS HELPED ME REACH MY GOALS.”

Steven Morris

ADAPTING TO A CHANGING WORLD



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Cefas plays an important role in teasing out the effects of natural environmental and climatic changes from those caused by human activity. Our science provides the evidence base to allow us to develop strategies to adapt to changing climate pressures and mitigate long-term damage. Over the past four years we have worked hard to consolidate our position as the national centre for excellence in marine climate change, and the leading provider of co-ordinated advice on climate change impacts around our coasts and the costs and benefits of potential adaptation policies.

MARINE CLIMATE CHANGE

Cefas hosts the Marine Climate Change Impact Partnership (MCCIP), which brings together scientists, government and its agencies, and NGOs. This year we produced the first MCCIP “ecosystem linkages report card” (www.mccip.org.uk/elr), an innovative approach to presenting current science on marine climate change. Previous MCCIP annual report cards have highlighted key impacts for individual components of the marine environment (for example seabirds), but the new approach builds on this to emphasise how the interconnectedness of these components may intensify change. This new “bigger picture” approach sets out concise but comprehensive, quality-assured knowledge in a visually impactful way to enable quick and easy assimilation and use by policy advisors, decision-makers, ministers, Parliament and the devolved administrations.

The UK Climate Impacts Programme (UKCIP), which aims to help the public, private and voluntary sectors understand and adapt to climate change, has for the first time included a marine and coastal report, co-authored by Cefas scientists, in its set of climate change projections (published in June 2009). MCCIP also provided valuable guidance for the user interface accompanying these data.

OCEAN ACIDIFICATION SCENARIOS: REMOVING UNCERTAINTY

The oceans play a hugely significant role in absorbing carbon dioxide produced by human activities – but at a price. The chemistry of seawater is changing dramatically, in a process known as ocean acidification. This is a serious threat to marine organisms, in particular impairing their ability to make shells and skeletons through calcification. The impact of this on organisms such as corals, crustaceans and molluscs could have tremendous ecological and economic consequences.

Cefas' Climate Change programme has invested in a high-quality experimental system that can accurately adjust seawater pH to levels predicted to occur in future decades in order to confirm these theoretical scenarios, and obtain experimental evidence of the processes involved when ocean chemistry is altered.

NEW WAYS TO DETECT MARINE VIBRIOS

Several species of marine vibrio bacteria can be harmful to humans and are of concern to the shellfish industry, as they can concentrate in shellfish, especially during warm weather episodes – which are likely to increase in the future.

Previously, tests to detect vibrios relied upon culture of portions of shellfish prior to confirmation of potentially pathogenic bacteria. This process was time-consuming and could result in the rejection of foodstuffs due to the presence of harmless vibrio strains. Cefas has used internal funding to develop a rapid, sensitive and quantitative molecular method to detect and measure marine vibrio pathogens directly in shellfish tissue. This approach, the first of its kind, allows the direct detection of these pathogens in as little as four hours.



Ocean acidification can inhibit the deposition of calcium carbonate, essential for shell formation in crustaceans.



CHARTING CHANGE IN FISH DISTRIBUTION

Changes in the distribution of fish populations due to warming seas may have environmental, economic and political consequences. Cefas' Climate Change programme, headed by John Pinnegar (left), is providing leading science on studies into fish population movements as a response to higher sea temperatures. Such shifts in distribution have knock-on effects not only for indigenous fish populations, but also for commercial fisheries, potentially impacting on fishing communities and livelihoods. Species distributions may migrate across boundaries where quotas belong to different nations. Disputes over the apportionment of fishing resources in such scenarios – as when, in 2009, Norwegian fishing vessels followed mackerel into EU waters – have increasing potential to cause international conflict.

PEOPLE IN CEFAS

John Pinnegar is Programme Director for Marine Climate Change at Cefas. His role is to act as strategic co-ordinator for all work focused on climate impacts. "Understanding the effects of our changing climate will, by necessity, rise up the political agenda. Helping policy-makers to devise a relevant response, and to aid mitigation and adaptation, is fundamentally important and something we're fully engaged with."

“ CO-ORDINATING ADVICE
ON ADAPTATION TO CLIMATE
CHANGE IS CRITICAL. ”

John Pinnegar, Cefas' Climate Change programme

LEADING GLOBALLY BY EXAMPLE



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Although the primary focus of Cefas' applied science is to underpin decision-making in the UK, we are part of a much broader global community of marine science expertise and the reach of our research is wide. At an advisory level we participate in expert groups, using our knowledge to encourage best practice. We also work in partnership with overseas colleagues to seek answers to international conundrums such as eel biology, or address local issues where we can bring to bear our wider expertise and technological capability.

AUDITING INTERNATIONAL TRADE IN SHELLFISH

Over the last decade there has been a great increase in international trade in foods, the EU being a globally significant importer. Our Food Safety group provides specialist assistance to the EC to help ensure that the risks from bivalve shellfish (oysters, mussels, clams, etc) imported into the EU are properly managed by exporting countries. This involves on-the-spot inspection visits in the exporting country, normally over a two-week period, by a specialist team led by EU officials. Recent countries visited include the USA, Canada, Vietnam, China, Peru and Japan, all major bivalve shellfish producers. This important work helps to ensure the safety of food for consumers across the whole of the EU.

Sorting a Chinese scallop harvest on deck in September 2009. Harvesting practices play an important role in determining food safety.



EXAMINING THE BIOLOGY OF CORAL REEFS

Coral reefs are the most diverse marine ecosystem on the planet, as well as a critical source of income and food for millions of people around the world. In July 2009, Cefas' Graham Pilling, in collaboration with the lead author Professor Charles Sheppard of the University of Warwick and co-author Simon Davy from the University of Wellington, New Zealand, published a book entitled *The Biology of Coral Reefs*, which examines the biology, ecology, conservation and management of this key, but threatened, ecosystem. The book, which is aimed at both students and professionals, has proved a great success: it was reprinted within six months following its publication, and is now required reading on a number of courses around the world.

The eeliad project hopes to unravel the mysteries of European eel migration.



LEARNING THE SECRETS OF THE EUROPEAN EEL

European eel populations are in serious decline, prompting national governments and the EU to implement eel management plans that aim to recover stocks across Europe. Cefas is at the forefront of efforts to understand the reasons for this decline, and is leading a four-year EU tagging project, eeliad (www.eeliad.com), which is focusing on the incredible migration of eels to spawn in the Sargasso Sea.

This year, results obtained from eels marked with electronic tags were published in the journal *Science*, revealing the direction, speed and behaviour of eels in the first phase of their long journey. The eeliad project garnered much media coverage in Europe in 2009–10, including a feature on BBC TV (see also p 31), during which Cefas scientists Julian Metcalfe and David Righton explained why we need to find out more about eels, and how tagging them may provide some answers about their mysterious migration.

BUILDING BRIDGES

Cefas is involved in long-term and cutting-edge environmental assessment during the planning and construction of the planned Fehmarn Belt fixed link bridge between the islands of Fehmarn (Germany) and Lolland (Denmark). The bridge will span 22 km of water and is one of the largest construction projects in Europe. Cefas has teamed up with five other institutions from Germany, Denmark and Scotland to assess the impacts of the fixed link on harbour porpoises and seals, and provide expert input into the investigations on marine benthic habitats in the Fehmarn Belt. The study kicked off in 2008 and is planned to continue beyond 2011.

ACOUSTIC SURVEYS WITH THE NORWEGIANS

Renewed political interest during the year in the abundance and seasonal distribution of mackerel in the north-east Atlantic resulted in Cefas staff responding to a call from Defra to collaborate with Norwegian colleagues in an acoustic survey in Arctic waters. Our scientists joined the fishing vessel FV *Eros*, spending three weeks with Norwegian colleagues working on mackerel acoustic survey methods. Fisheries acoustics are an established tool to sample the entire water column, providing high-resolution information on distribution and abundance of a range of organisms, fitting well with the ecosystem approach to fisheries. Strong links were forged through this collaboration, establishing an ongoing partnership.

“LINKS FORGED THROUGH INTERNATIONAL COLLABORATION HELP TO ESTABLISH LONG-TERM PARTNERSHIPS.”

DEVELOPING OUR CAPABILITY



© cobalt id

An independent review of capability in Defra agencies highlighted the unique role that Cefas plays in providing expertise and facilities in many areas of marine science. Our programme of investment has taken us into new areas and broadened our expertise. We take advice from an independent advisory board of leading experts – the Cefas Science Advisory Committee, chaired by Joe Horwood. This valuable input helps us to shape our science for an increasingly demanding future.

USING OUR SEEDCORN INVESTMENT

Investing in building scientific capability and competence enhances our ability to meet the Cefas vision of making a real difference for society as recognised leaders in marine and aquatic science. Using our Seedcorn fund, we invest in training, cross-Cefas science initiatives and the most innovative and relevant research and development that supports customers' strategic needs. For example, we currently invest in building "end-to-end models" that link chemical and physical processes in the sea to the variety, distribution and abundance of marine life. Such models are already providing valuable tools for assessing the effects of climate change and human activities and helping to predict alternative futures for the sea. The Seedcorn fund is also being used to develop Cefas' capacity to research and advise on economics and social science, supporting studentships, a new economist post and a joint lectureship in Marine Ecosystem Services at the University of East Anglia, held by William Cheung (pictured above right, facing page).

DEVELOPING OUR SCIENTISTS

We encourage a range of activities throughout our organisation to develop scientific skills and foster scientific co-operation. A Science Club aims to increase and facilitate scientific outputs, raise staff awareness on the advancement of relevant science and foster the ethos of scientific excellence in our laboratory. The group involves scientists from all departments, including senior staff who act as mentors either during group sessions or in one-to-one discussions.

The Tea hou“R” group brings together scientists working with the “R” statistical computing software, from complete beginners to experts, to develop and share skills and expertise. Our lively seminar programme builds awareness of the latest research developments and encourages new collaborations. Speakers this year included Professor Ray Hilborn from the University of Seattle, a former winner of the Volvo Environment Prize, who described the latest developments in salmon fishery management.

STUDENTS IN CEFAS

Cefas has a long-standing policy of encouraging engagement with the academic sector and sponsoring studentships. Cefas staff currently co-supervise nearly 40 PhD students registered at universities in the UK and overseas. This programme helps forge and maintain collaborative links with universities and contributes to a more innovative and diverse research culture.

A Student Day is arranged each year at which all students have the opportunity to meet and present their work. The meeting in 2009 saw presentations relating to many areas of Cefas’ science, including “microplastics” in the environment, decision-making by commercial fishers, and fish diseases and parasites.



William Cheung is joint UEA–Cefas lecturer in Marine Ecosystem Services. He is involved in interdisciplinary research projects on marine conservation and resource management that range from global analyses to regional studies.



INVESTIGATING MARINE PLASTIC WASTE

Plastics comprise the most abundant and rapidly growing component of marine litter, and may take thousands of years to break down. A PhD studentship co-funded by Cefas is enabling investigations into the potential for microbes to biodegrade marine plastic waste. Jesse Harrison’s research at the University of Sheffield utilises DNA-based methods to detect and evaluate the interactions between microbes and fragments of synthetic plastics on the seabed. The work has produced the first evidence that there are certain microbes able to colonise plastic surfaces. This raises the exciting possibility that these organisms could contribute to the breakdown of plastic-associated organic pollutants, or even the plastics themselves.

PEOPLE IN CEFAS

Jesse Harrison’s research forms part of a Collaborative Awards in Science and Engineering (CASE) studentship, jointly funded by the NERC and Cefas. “The development of experiments for our work has been challenging, requiring extensive collaboration with my colleagues in Cefas. This has contributed both to my development as a scientist and to the establishment of lasting links between Cefas and the University of Sheffield.”

“COLLABORATION WITH CEFAS IS HELPING US UNRAVEL THE IMPACTS OF MARINE PLASTIC WASTE.”

Jesse Harrison, University of Sheffield

SCIENCE PAPER OF THE YEAR

Our Paper of the Year competition highlights our commitment to promoting and publishing excellent science. Throughout the year, Papers of the Week are featured on our intranet's front page, having been selected on the basis of their expected influence, originality, criticality and presentation of the research. The strongest papers are then put forward for consideration as Paper of the Year. Winning papers typically report novel ways to address problems in environmental management, which are expected to make a real difference for society.

► PAPER OF THE YEAR

REBUILDING GLOBAL FISHERIES

The Paper of the Year award recognised the Cefas contribution to a study that brought together a formidable array of fisheries scientists and ecologists from around the world to assess the state of global fisheries and the performance of fisheries management. The paper highlighted trade-offs between fisheries management and conservation. It showed that good progress towards meeting both fisheries and conservation objectives could be achieved by the lowest fishing rates, which would take 90% of the multispecies maximum sustainable yield from an ecosystem. In Europe, the work will inform the debate on the reform of the Common Fisheries Policy and on approaches for achieving Good Environmental Status as required by the Marine Strategy Framework Directive.

Worm, B., Hilborn, R., Baum, J. K., Branch, T. A., Collie, J. S., Costello, C., Fogarty, M. J., Fulton, E. A., Hutchings, J. A., Jennings, S., Jensen, O. P., Lotze, H. K., Mace, P. M., McClanahan, T., Minto, C., Palumbi, S. R., Parma, A. M., Ricard, D., Rosenburg, A. A., Watson, R., and Zeller, D. 2009. Rebuilding global fisheries. *Science* 325: 578–585.



CATEGORY WINNERS

MODELLING SUSPENDED PARTICULATE MATTER IN SHELF SEAS

The accurate representation of light reduction by sediment particles in the water column is one of the main factors limiting our ability to forecast primary production and to assess the effects of eutrophication (nutrient enrichment effects) in shelf seas. In this work a model was developed to simulate concentrations of a number of grain-size components of sediment that would be re-suspended by a combination of currents and waves. This was used to improve the General Ocean Turbulence Model. The authors then validated the new model with several years of previous observations from Cefas SmartBuoys. The study starts a new strand of work that improves our capability to use 3D coupled physical-biological models to investigate ecosystem changes in the shelf seas. It adds realism to existing models and provides an important example of physical processes influencing biology.

Van der Molen, J., Bolding, K., Greenwood, N. and Mills, D. K. 2009. A 1-D vertical multiple grain size model of suspended particulate matter in combined currents and waves in shelf seas. *Journal of Geophysical Research* 114: F01030, doi:10.1029/2008JF001150.

A NON-ANIMAL METHOD FOR THE ANALYSIS OF PARALYTIC SHELLFISH POISONING (PSP)

The EU official reference method for the analysis of paralytic shellfish poisoning (PSP) toxins in bivalve shellfish is the mouse bioassay (MBA). An alternative method, involving high performance liquid chromatography (HPLC) with fluorescence detection, was refined at Cefas to incorporate additional toxins and to improve the sensitivity and sample throughput. A validation exercise was performed allowing the reporting of method performance characteristics for all commercially available certified toxins. Parallel testing of naturally contaminated mussels gave similar results with HPLC and MBA. As a result, and following a period of peer review and stakeholder consultation, the Cefas HPLC method was implemented in May 2008 as the sole monitoring tool for UK official control-surveillance of PSP toxins in common mussels. The work was funded by the UK Food Standards Agency.

Turner, A. D., Norton, D. M., Hatfield, R. G., Morris, S., Reese, A. R., Algoet, M. and Lees, D. N. 2009. Single laboratory validation of the AOAC HPLC method (2005.06) for mussels: refinement and extension of the method to additional toxins. *Journal of AOAC International* 92 (1): 190–207.

Data collected by Cefas' SmartBuoys were used in a study modelling the behaviour of sediment particles in the water column (left).



MIXED-FISHERY OR ECOSYSTEM CONUNDRUM?

The EC has stated an objective to manage fisheries to achieve maximum sustainable yield (MSY) by 2015, which has catalysed the Regional Advisory Councils' thinking on how MSY relates to their goal of developing long-term management plans. This study used an ecosystem model of the North Sea to investigate questions relating to MSY in the context of mixed demersal fisheries for cod, haddock and whiting rather than using traditional methods that focus on one species at a time. Results suggested that it is not possible to simultaneously achieve yields corresponding to the MSYs predicted when assessing the stocks separately. Incompatibility between mixed-fishery and ecosystem-scale considerations exemplifies the difficult conceptual and practical challenges faced when moving toward an ecosystem approach.

Mackinson, S., Deas, B., Beveridge, D. and Casey, J. 2009. Mixed-fishery or ecosystem conundrum? Multispecies considerations inform thinking on long-term management of North Sea demersal stocks. *Canadian Journal of Fisheries and Aquatic Sciences* 66 (7): 1107–1129.



What Trawlermen Want is a short animated film posted on the internet to publicise Cefas' Project 50% initiative.



TELLING OUR STORY

This year we've used events, multimedia platforms and awards ceremonies to raise our profile with a diverse range of audiences.

NATIONAL AND LOCAL EVENTS

We brought our flagship research vessel, the RV *Cefas Endeavour*, up the Thames in April 2009 to promote the scientific support we give to Defra, the Marine Fisheries Agency (MFA) and others. The Marine Bill was being considered in the House of Lords and it gave the Lords and Ladies, representatives from other related marine organisations and Defra colleagues the opportunity to see first-hand the diversity of our offering, and to hear about how our evidence will continue to support marine planning decisions made by the new Marine Management Organisation (MMO).

The launch event for Project 50% (see p 15), held in Exeter, was attended by representatives from south-west fish producers' organisations, the Seafood Choices Alliance, Seafish, local councillors and journalists, and the senior fish buyer from Sainsbury. Celebrity chef Michael Caines hosted the event, where the project's interim results were announced. An animated film highlighting the project's aims, produced by Jake Revill, son of project manager Andy Revill, has been viewed almost 1,000 times on YouTube.

MARINE MONTH

This year Defra ran a series of themed months (entitled "Tell the Defra Story"), showcasing the breadth of its policy work. The focus for March 2010 was marine policy, with the objective of raising awareness of the work done by its marine programme, Cefas and the MFA. We played our part by providing content for online news stories and briefings, people profiles of our staff, a lunchtime seminar on marine climate change impacts, films of ongoing work – including a "week in the life" of scientists aboard the RV *Cefas Endeavour* – and an online quiz.

Richard Judge's week-long blog proved particularly popular, gaining the highest number of online hits for the month. All in all, Marine Month activities helped to raise our profile with core customers and beyond – our online story about Project 50% was discussed at the Senior Civil Servants' spring conference. Subsequently, a briefing note and section of adapted fishing net were presented to Cabinet Secretary Sir Gus O'Donnell.



Neil Turner

The RV *Cefas Endeavour* draws alongside HMS *Belfast* on its Thames visit in April 2009.

Cefas scientists David Righton and Julian Metcalfe show BBC TV's Mike Dilger (far right) how to tag an eel.



© BBC

FILM AND TELEVISION

Our stories and insight have been captured on a number of films broadcast this year. The eel project (see p 25) received a lot of interest, with coverage on Irish TV and the BBC's *The One Show*. A nature documentary is being planned, which we hope will receive a worldwide release.

The effects of climate change on fishing communities was featured in an episode of Michael Portillo's *Great British Railway Journeys*, and our work behind the scenes protecting the public from the effects of harmful algal toxins in shellfish was captured in BBC TV's new *Food Fighters* series.

AWARDS AND ACCOLADES

Teams from Cefas received accolades at both the 2009 national Civil Service Awards and the Defra Team Awards ceremonies. Our Harmful Algal Biotoxins in Shellfish and Plankton Ecology teams were shortlisted for their category in the prestigious national awards. In addition, the Cefas RV Services Procurement team won Defra's Corporate Services award for their work on delivering a cost-efficient, shared and flexible arrangement for marine services in the future.

FUTURE PLANS

Looking ahead, a key area substantiated by customer feedback is the need to communicate our science clearly and to a wider audience. Honing our essential key messages and training customer-facing ambassadors to "tell our story" – communicating our range of services and capability – should ensure that the value of the work we do will be more widely understood and recognised in future.

Our Weymouth staff take part in beach clean-ups of Newton's Cove, which lies just beneath the Cefas laboratory. They have "adopted" the beach as part of a Marine Conservation Society national scheme.



SUSTAINABLE DEVELOPMENT

The essence of our work directly supports *Securing the Future*, the government's sustainable development strategy, including its priorities of "natural resource protection and environmental enhancement" and "climate change and energy".

SUSTAINABILITY INITIATIVES

Our third Sustainable Development Action Plan, for 2009–11 (available to download from our website), demonstrates our continuing progress in embedding sustainability at the core of our work and support for Defra as sustainable development champions across government.

A new ministerial target (see p 11) was introduced this year to reflect our commitment to workplace health, safety and the environment. It is based on the delivery of the Sustainable Development Action Plan, maintaining ISO14001 certification and delivering both health and safety key performance indicators and our health, safety and environment corporate plan.

NEW FOCUS: APPLYING SOCIO-ECONOMICS TO OUR WORK

We have recognised that while our work promotes sustainability – especially the protection of natural resources, environmental enhancement and climate change and energy – we must increase our expertise in applying socio-economic tools in environmental decision-making to provide advice that fully reflects the three dimensions of sustainable development: social, economic and environmental. Recruitment is underway for a strategic socio-economics post.

VOLUNTEERING IN THE COMMUNITY

Our new "Cefas Connect" scheme encourages staff to take an active role in volunteering in the community. It provides clearer volunteering guidelines and supports a broad programme of community-based initiatives. Our current community work includes school events, fund-raising events for charities, beach clean-ups and active membership of local lifeboat crews.

OPERATIONS: THE ENVIRONMENT IN WHICH WE WORK

We have achieved our environmental management targets for reductions in carbon emissions from buildings and waste recycling. Installation of energy-efficient lighting at our Weymouth laboratory helped reduce our carbon dioxide emissions by 46 tonnes.

As part of Defra's Sustainable Workplace Management partnership, we are working to identify further improvements that can be made, given the dissolution of the Waveney Campus project (see p 36) and the subsequent review of alternative options.

ENVIRONMENTAL MANAGEMENT TARGETS

	1999–2000	2008–09	2009–10 ¹	Target
Total carbon emissions (tonnes)	887	810	744	776
Percentage below 1999–2000 levels	–	9%	16%	reduce by 12.5% by 2010–11, relative to 1999–2000
Tonnes per £1 million turnover	31.3	14.2	13	
Percentage of recycling	–	33 ²	45 ²	40% of waste arisings by 2010

¹ Estimated

² Excludes waste recovered for energy use

The Marine Biotoxin team at our Weymouth laboratory.



WORKING TOGETHER

Our focus on attracting, developing and enthusing exceptional people has led to positive staff survey results and a number of initiatives this year. Embedding a new performance review system and providing training and development opportunities have helped us to manage our people and support their aspirations. In addition, there has been a real sea-change in overall health and safety awareness and practice.

PEOPLE FIRST

This year, we restructured our HR team to focus on providing business partner support to our divisions. As a result all teams have a named contact to work with to resolve any people issues that arise. An externally appointed HR and Organisational Development (OD) Director now leads the team to deliver the strategic aims.

This has involved revising the Competency Framework, which sets out the values, skills and behaviours that drive the way we interact both internally and externally with our customers. After extensive consultation and involvement with staff at all levels, the Framework was integrated into a new performance management system. All staff now have clearer outcomes and, for some, increased accountability for management actions.

ABSENCE DATA

In 2009–10, the average number of days lost to absence per full-time equivalent employee was 7.6 days (2008–09 average was 6.2 days).¹

STAFF SURVEY RESULTS

An important mechanism for staff feedback is our annual staff survey. This year's overall result, at 69%, was broadly similar to last year's. Within the detail, we saw improvements in areas such as learning and development and communications, a positive outcome to actions taken. Other highlights included the positive recognition that line managers are receiving from their teams, as well as the fact that staff feel intense pride about working for Cefas. Staff also identified specific areas for attention, and we are working together to agree actions.

As part of the civil service, we also participated in the UK's largest staff engagement survey, which provided valuable external benchmarks. Our overall "engagement index" of 62% was on the cusp of being among the "top performers" – the top 25% across the whole civil service. Our ambition in 2010–11 is to be within this top-performing group.

Building on our positive working environment we have encouraged internal communication by refreshing our Staff Forum. Elected staff meet with the senior management team regularly to discuss business topics or offer feedback on issues that directly affect staff. Drop-in sessions and road shows with the Chief Executive have featured a variety of topics to ensure that staff receive a consistent and informed message, as well as the chance to provide feedback.

STAFF DEVELOPMENT

Investing in staff remains a business priority. We have devised a bespoke development programme for our team leaders, which is facilitated by senior managers to generate cross-skilling and provide an insight into different management challenges. Staff support each other through "action learning sets", which is a way of sharing problems to solve work issues rather than learning based on theories.

¹ Averages as reported to the Cefas Management Board

INDIVIDUAL SUCCESSES 2009–10

- ▶ Stephen Feist has been appointed President of the European Association of Fish Pathologists (EAFP) for the next four years. The EAFP has a global membership of approximately 1,000.
- ▶ Carl O'Brien was appointed Vice-Chair of ICES' Advisory Committee, that organisation's sole competent body for scientific advice supporting the management of coastal and ocean resources and ecosystems.
- ▶ David Righton was awarded the annual Buckland Foundation Professorship in 2009. During his tenure he gave seven lectures on "Atlantic cod in the North Sea", and is now completing a book on the subject.
- ▶ Barry Hill, Cefas' long-serving Chief Adviser for Aquatic Animal Health to Defra, became President of the Aquatic Animal Health Commission of the OIE (World Organisation for Animal Health).
- ▶ Andy Payne has been awarded the Professor Kazimierz Demel Medal by the Sea Fisheries Institute, Gdynia, Poland for his "outstanding contributions in the field of fisheries research including organization, education and dissemination activities in this field".
- ▶ Simon Jennings was awarded the 2010 Meek Scholarship by the University of Alaska, to present guest lectures on "The ecosystem approach and fishing impacts in Fairbanks and Juneau".

SENSIBLE HEALTH AND SAFETY

We have signed up to the Health and Safety Executive (HSE) campaign of "Sensible Health and Safety". We are committed to managing our risks in a balanced and proportionate way that supports the delivery of safe and sustainable science. "Risk aware, not risk averse" has been the basis of our approach.

We are committed to protecting the health, safety and well-being of our staff. To that end, we have continued to develop and improve our arrangements for managing health and safety (H&S) issues. We established a strategy this year that has two main aims:

- ▶ to construct robust H&S procedures that ensure the practical management of risk and provide comprehensive guidance for staff in order to create ownership at the local management level
- ▶ to promote the transition to a safety culture by improving two-way communication, involving staff in the development of systems and providing strong and visible leadership in H&S at all levels of management.

An organisation with such a broad range of activities as ours has a wide variety of risks. To manage these, we have carried out the following specific actions this year:

- ▶ fieldworker safety: we developed a fieldworker competency framework that is supported by a revised procedures and guidance manual
- ▶ occupational road risk: we identified drivers at higher risk, and training is being provided, in relation to the risk assessments done
- ▶ organisational stress: a "Work Positive" project has filtered information from staff surveys and risk assessments, enabling us to develop an action plan to promote positive working across the organisation. Performance against the HSE's management standards for work-related stress will continue to take place as the project builds upon the benchmark year
- ▶ OHSAS 18001: we have started working toward achieving certification in this safety management process. Internal auditors have been trained and a schedule of internal and external audits will take place in 2010–11 to monitor H&S standards.

In addition to these projects, we have reviewed our Occupational Health management system and made improvements to the methods for identifying health hazards. We continue to highlight the importance of reporting H&S incidents through a "Safety Alert" procedure, and have launched new mechanisms to feedback significant lessons directly to staff using a "traffic light" status notification, with accompanying "Safety Flashes".

DIVERSITY AND EQUALITY

Being an employer of choice and one that not only complies with legislation, but also seeks to lead, is a fundamental business ethos. The Single Equality Scheme demonstrates our commitment to these principles and supports our strategy and values. The scheme's principal document outlines how we are meeting our legal and statutory obligations in relation to disability, race, gender, age, sexual preference, religion and belief.

Our Equalities and Diversity group has a champion who acts as the main focal point for initiatives. The work that has been generated as a result of the "Women in Cefas" initiative (which created an opportunity for joint learning on issues of career progression among women) has been highlighted as an example of good practice within our wider network. A broader remit is to ensure that our workforce profile fully represents the communities in which we work, as well as raising awareness of the many issues that staff may face through training and development initiatives.



Heather Rumney, Hydrocarbons team leader, screens samples of marine sediment for organic and metallic contaminants. Heather is a representative on Cefas' Health and Safety Committee.

“ OUR AIM IS TO BE A VIBRANT PLACE WHERE OUTSTANDING PEOPLE WANT TO WORK. ”

This year we can report continued strengths in our work with industry and other markets, particularly the energy sector.



FINANCIAL PERFORMANCE

Cefas has delivered another strong financial performance. We have met the key ministerial targets set for financial performance and efficiency for the year ended 31 March 2010. In 2009–10 we delivered more than 600 customer projects totalling in excess of £57 million, improved our operating effectiveness by more than £0.5 million, and invested in our science, infrastructure and people to secure a sustainable future for the agency.

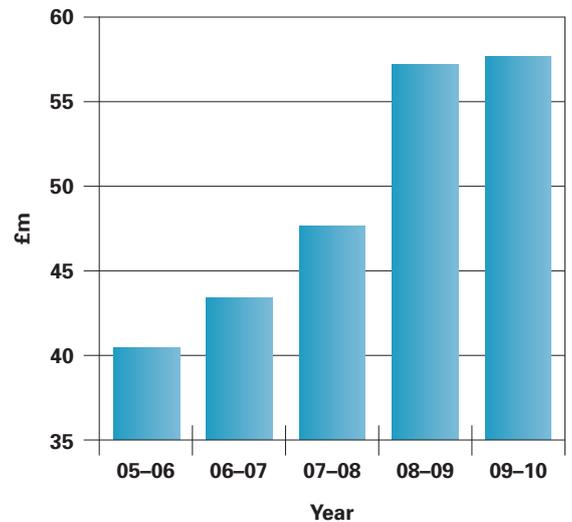
As an agency under the net accounting regime we have a continuing requirement to recover the full economic cost of the services Cefas provides. This was achieved and an overall net surplus of £200,000 (2008–09: £23,000) was generated.

This surplus was achieved through strong income growth of more than £2 million above our original business plan and improved operating efficiencies set against a one-off charge of £2.5 million, which arose from the dissolution of the Waveney Campus project.

This project, a three-way partnership with Waveney District Council and Suffolk County Council, was to provide new laboratory and office facilities for Lowestoft. In December 2009 the partners agreed to dissolve the Campus partnership. Cefas will, instead, deliver essential work at its existing Lowestoft site to extend the site's useful life until 2017. We will review longer-term plans in due course.

Reported turnover totalled £57,347,000 (2008–09: £57,100,000). Total turnover is inflated by our programme management business, in which we lead and co-ordinate major programmes in which sizeable sums flow through to partners and sub-contractors. These major sub-contracts account for approximately £7 million of turnover.

TURNOVER TREND



Income from Defra made up 68% of our work for the year (2008–09: 66%), or £38,788,000 (2008–09: £37,426,000). Of this, approximately £30 million reflects a strategic partnership between Cefas and Defra. This includes a long-term commitment to provide funding stability for core services, required by government.

Non-Defra turnover plays a critical role in broadening our capabilities and experience, in demonstrating our competitiveness and in contributing significantly to our fixed costs. This work continues to make up around one-third of all Cefas work despite the challenging economic climate in wider markets. Of this, £6,688,000 of turnover (2008–09: £6,888,000) came from other UK government departments, agencies and the wider public sector, where a continuation of the services we supply to the Food Standards Agency (FSA) was achieved. The FSA is our second-largest customer, providing £5,328,000 of turnover (2008–09: £5,112,000). Particularly encouraging has been the maintenance of our work with industry and other markets. We delivered turnover of £5,469,000 in year (2008–09: £5,957,000), predominantly from our strength in the energy sector. EU research levels were down a little from last year, at £3,294,000 (2008–09: £3,757,000). This work is important in enabling significant leverage of Defra research funding and demonstrates the international collaboration inherent in much of our work.

Base costs were controlled through the year, these being kept below general price inflation of 3.8%, with the most material changes being to staff pay. Continuation of our pay-progression arrangements provided an average annual increase of 2.7% to staff. Further cost savings of £500,000 were achieved through productivity and overhead improvements.

Costs associated with estate maintenance continue to be a concern at the Lowestoft laboratory, where over the last four years a policy of reactive maintenance for matters that do not affect health and safety has been pursued. This will be substantially improved through the planned works to the existing building in 2010–11.

There were no charitable donations greater than £200 made in the year (2008–09: £NIL).

EVENTS AFTER THE REPORTING DATE

These accounts were authorised for issue by the Cefas Accounting Officer on 7 July 2010. Defra recently announced a review of its delivery bodies, and further announcements are expected later in 2010. At present there are no specific proposals for Cefas that should be reflected in the accounts, which are prepared on a going concern basis.

PENSION LIABILITIES AND ENTITLEMENTS

Pension liabilities arising from early retirement or other enhancements are accrued in total in the year in which the liability arises. These charges are paid either to the Principal Civil Service Pension Scheme, which is responsible for meeting future pension obligations on behalf of Cefas, or to employees' stakeholder-based arrangements. Further details are provided in Note 3(c) to the accounts.

ASSETS

Our Lowestoft site was revalued upwards, following the decision not to progress the Waveney Campus project, to reflect continuing use. This increase is reflected in our revaluation reserve, which is more than offset by a reduction in the value of our Weymouth site due to a reduction in construction replacement costs. Underlying capital charges relating to land, buildings and our research vessel decreased in the year due to the closure of our former Burnham-on-Crouch site. This site was sold during the year realising proceeds of £470,000 and a surplus on sale of £70,000.

Capital investment in the business of £1,894,000 (2008–09: £1,558,000) was principally incurred on scientific equipment – £1,433,000 (2008–09: £898,000) – which is typically replaced at a rate close to that depreciated to maintain the asset base. An important project to commission a new management information system was concluded after the year end when the new system went live on 6 April 2010. The asset was transferred out of Assets in the Course of Construction to Intangible Assets. All other costs relating to the implementation were expensed during the year. Cefas acquired 100% of the share capital of Cefas Technology Limited (CTL) in 2001. CTL provides a channel to wider markets for specific Cefas products and services. Examples include electronic fish-tag production and fish-disease testing.

In line with FReM requirements, CTL accounts are not consolidated into Cefas' statements of accounts. In 2009–10, CTL traded profitably, making £69,000 before tax on turnover of £387,000.

CASH MANAGEMENT

The business generated a positive operating cash flow of £8,517,000 (2008–09: £8,870,000), primarily because of the non-cash nature of depreciation, notional charges and changes in working-capital management.

Working capital has increased in the year, consuming £1,204,000. An increase in debtors at the year end was primarily due to the timing of a payment from Defra, which was received in April 2010. Working capital has increased as we continue to pay suppliers within the HM Treasury set guidelines of ten days from receipt of invoice. Throughout the year our average performance against this target was 97%. Trade creditors were specifically lower than usual this year as all balances were settled to facilitate the implementation of the new management information system over the year end.

Having reviewed the cash requirements of the agency with Defra, we have repaid £7,000,000 (2008–09: £5,000,000) to them, which reduces the General Fund reserve balance. This leaves us in a sound cash position with sufficient liquid funds and customer contracts to meet all our expected obligations within the coming financial year.

FINANCIAL RISK

The primary financial instrument risk that we are exposed to is the receipt of payments from customers, 93% in pounds sterling and 7% in foreign currencies; and the payments of certain goods and services in foreign currencies. This risk is believed to be low-level, and the policy is to accept net currency conversion risk of euros and US dollars or closely linked currencies. We manage our own collections risk and reduce our exposure to foreign currencies by netting receipts and payments in the same currencies before translating any remaining funds to pounds sterling.

FUTURE PLANS

Defra's Secretary of State announced on 29 June the first outcomes of a review of the department's delivery bodies. Further announcements are expected later in 2010. At present there are no specific proposals for Cefas.

We will continue to deliver our plans in an increasingly challenging marketplace as government finances are tightened. This will necessitate an increased focus on securing our future through a greater sales effort, the need for further operating efficiencies and a tight control of our cost base. These plans are set out in "Delivering Our Plans" (see p 6).

AUDITORS

Our external auditor is the Comptroller and Auditor General, whose address is:

The Comptroller and Auditor General
157–197 Buckingham Palace Road
Victoria, London SW1W 9SP

The cost of work performed by the external auditor is £50,000, plus £8,000 relating to preparations for the move to International Financial Reporting Standards (IFRS) (2008–09: £40,000 plus £9,000 relating to IFRS preparations). No other fees were paid to the external auditor.

As far as I, the Accounting Officer, am aware, there is no relevant information of which the auditors are unaware. I have taken all the steps that ought to have been taken to make myself aware of any relevant audit information, and to establish that the auditors are aware of that information.



Richard Judge, Chief Executive
7 July 2010

REMUNERATION REPORT

The Cabinet Office, subject to HM Treasury remits, sets the remuneration of the Cefas Management Board's executive directors. They are senior civil servants and their contract of employment is with Defra. Cefas, however, bears the cost of their employment. Up to 15% of their remuneration is performance-related and is reviewed by Defra against achievement of ministerial targets.

Joe Horwood, Cefas' Chief Scientific Adviser, operates in a non-executive advisory capacity on the Cefas Management Board (CMB). This is an advisory role and has no executive accountabilities or authorities. The remaining non-executive members are employed by Cefas on fixed-term contracts – their remuneration is contractual with the reimbursement of expenses.

Chief Executive Richard Judge is contracted with Defra for a fixed term to February 2012. All other executive directors and one non-executive director, Joe Horwood, are under permanent contracts of employment with Defra. There is a maximum notice period of six months from Defra and a minimum of three months from the employee. The length of service, salary and age of the employee determine any termination payments payable.

Non-executive directors, with the exception of Joe Horwood, are contracted by Cefas and have notice periods of three months, from either Cefas or the individual.

No awards for early termination were made to existing or former directors in the year.

REMUNERATION OF CEFAS DIRECTORS (AUDITED)

	Salary for period		Performance bonus		Total remuneration	
	2009–10 £'000	2008–09 £'000	2009–10 £'000	2008–09 £'000	2009–10 £'000	2008–09 £'000
CMB executive directors						
Chief Executive						
Richard Judge	120–125	115–120	10–15	15–20	130–135	135–140
Operations Director						
Mike Waldock	65–70	60–65	5–10	0–5	75–80	65–70
Finance and Corporate Services Director						
Tim Green	70–75	60–65	10–15	0–5	80–85	65–70

Salaries include gross salaries, performance pay or bonuses, overtime, reserved rights to London weighting or London allowances, recruitment and retention allowances, private-office allowances and any other allowance to the extent that it is subject to UK taxation. In line with other senior civil servants, Richard Judge's contractual performance bonus was capped in 2009–10. No CMB executive directors were in receipt of any benefits in kind (2008–09: £NIL); nor did they hold any company directorships or other significant interests that may have conflicted with their management responsibilities.

	Fee band		Performance bonus		Total remuneration	
	2009–10 £'000	2008–09 £'000	2009–10 £'000	2008–09 £'000	2009–10 £'000	2008–09 £'000
CMB non-executive directors						
Hugh Walker ¹	5–10	10–15	0	0	5–10	10–15
Alex Tweedie ¹	5–10	10–15	0	0	5–10	10–15
Joe Horwood ²	0	0	0	0	0	0
Andrew Field	10–15	5–10	0	0	10–15	5–10
Michael Gates ³	0–5	0	0	0	0–5	0
Sue Sharland ³	0–5	0	0	0	0–5	0

Notes to tables on pp 40–41

- Hugh Walker and Alex Tweedie stood down as non-executive directors during 2009–10, having reached the end of their appointed term.
- Joe Horwood is employed by Cefas as Chief Scientific Adviser (under permanent contract with Defra). This is an advisory role, without executive responsibility. His salary during 2009–10 in this advisory role was chargeable to Cefas and in the band £75–80,000 (2008–09: £75–80,000) with a performance bonus in the range £5–10,000 (2008–09: £5–10,000).
- Michael Gates and Sue Sharland joined the CMB as non-executive directors on 1 January 2010.
- CETV: cash equivalent transfer value.
- The figures in this column may be different from the closing figures in last year's accounts. This is because CETV factors have been updated, to comply with the Occupational Pension Schemes (Transfer Values) (Amendment) Regulations 2008.

PENSION ENTITLEMENTS OF CEFAS DIRECTORS (AUDITED)

	Real increase in pension and related lump sum at age 60 £'000	Total accrued pension and related lump sum at age 60 £'000	CETV⁴ at 31 March 2010 £'000	CETV⁵ at 31 March 2009 £'000	Real increase in CETV £'000
CMB executive directors					
Chief Executive					
Richard Judge	0–2.5 plus 0 lump sum	37.5–40 plus 0 lump sum	545	502	11
Operations Director					
Mike Waldock	0–2.5 plus 2.5–5 lump sum	25–27.5 plus 77.5–80 lump sum	576	514	29
Finance and Corporate Services Director					
Tim Green	0–2.5 plus 0 lump sum	5–7.5 plus 0 lump sum	64	43	16
CMB non-executive director					
Chief Scientific Adviser					
Joe Horwood ²	0–2.5 plus 5–7.5 lump sum	42.5–45 plus 127.5–130 lump sum	1,000	956	43

Details of the presiding pension schemes are detailed in Note 3(c) to the accounts.



Richard Judge, Chief Executive

7 July 2010

STATEMENTS,
CERTIFICATE AND
REPORT

02

STATEMENT OF ACCOUNTING OFFICER'S RESPONSIBILITIES

Under the Government Resources and Accounts Act 2000, HM Treasury has directed Cefas to prepare, for each financial year, a Statement of Accounts in the form and on the basis set out in the Accounts Direction.

The accounts are prepared on an accruals basis and must give a true and fair view of the state of affairs of Cefas and of its net operating costs, changes in taxpayers' equity and cash flows for the financial year.

In preparing the Statement of Accounts, the Accounting Officer is required to comply with the requirements of the *Government Financial Reporting Manual* and in particular to:

- ▶ observe the Accounts Direction issued by HM Treasury, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis
- ▶ make judgments and estimates on a reasonable basis
- ▶ state whether applicable accounting standards as set out in the *Government Financial Reporting Manual* have been followed, and disclose and explain any material departures in the financial statements
- ▶ prepare the financial statements on a going concern basis, unless it is inappropriate to presume that the agency will continue in operation.

The Accounting Officer of Defra has designated the Chief Executive of Cefas as Accounting Officer for the agency. The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which the Accounting Officer is answerable, for keeping proper records and for safeguarding Cefas' assets, are set out in *Managing Public Money*, published by HM Treasury.

STATEMENT ON INTERNAL CONTROL

SCOPE OF RESPONSIBILITY

1. As Accounting Officer, I have responsibility for maintaining a sound system of internal control that supports the achievement of Cefas' policies, aims and objectives whilst safeguarding the public funds and departmental assets for which I am personally responsible, in accordance with the responsibilities assigned to me in *Managing Public Money*.

2. I ensure that the Defra Permanent Secretary, the principal Accounting Officer for the department, is aware of the main risks managed by the agency through regular reporting of the top risks. Additionally:

- ▶ I ensure that the agency's business plans submitted to, and approved by, ministers include sections on risk
- ▶ I work with the Defra Corporate Owner and the Cefas Owners Advisory Board to assure governance and dovetail strategy
- ▶ I am responsible for the timely production of data required by Defra for in-year monitoring of its accounts. I ensure that Cefas observes any general guidance issued by HM Treasury or the Cabinet Office, and effects any recommendations of the Public Accounts Committee (PAC), other parliamentary Select Committees or other parliamentary authority insofar as government accepts them.

THE PURPOSE OF THE SYSTEM OF INTERNAL CONTROL

3. The system of internal control is designed to manage risk to a reasonable level rather than to eliminate all risk of failure to achieve policies, aims and objectives; it can therefore only provide reasonable, and not absolute, assurance of effectiveness. The system of internal control is based on an ongoing process designed to identify and prioritise the risks to the achievement of Cefas' policies, aims and objectives; to evaluate the likelihood of those risks being realised and the impact should they be realised; and to manage them efficiently, effectively and economically. The system of internal control has been in place for the year ended 31 March 2010 and up to the date of approval of the *Annual Report and Accounts*, and accords with HM Treasury guidance.

CAPACITY TO HANDLE RISK

4. As Chief Executive and Accounting Officer, I am advised by the Cefas Management Board (CMB), which is the top level of management within the agency. The CMB supports me in delivering my responsibilities for providing overall direction and governance of Cefas' activities and managing risk. It provides a forum for planning strategy, setting policies, reviewing performance, and making decisions that direct Cefas as a whole. The CMB achieves its objectives through six formal board meetings per year, supplemented by planning meetings. The CMB actively communicates its activities and decisions to all Cefas staff. The CMB is presented with financial and management information designed to monitor performance and manage risk. Decisions are supported by papers presented in a standard format.

5. A clear distinction is made between strategic management by the CMB and operational management that is delivered through a divisional organisation. The senior management team (SMT) provides an operational overview of day-to-day issues, and comprises the CMB executive members, Divisional Directors and the HR and OD Director. The SMT meets monthly and covers a range of operational issues. This includes review of a monthly performance and forecast pack. Divisional Directors carry responsibility for specific activities within their areas of operation, and report through the Operations Director to the CMB. Within the Corporate Centre, individual group managers are responsible for specific areas of operation (for example financial, commercial, governance, IT and HR risks) and report through the Finance and Corporate Services Director.

6. Risk appetite is set within the risk register rating method, categorising CMB and divisional-level risks allowing escalation as explained in the Cefas risk management plan. The Plan is made readily available to staff and referred to in the Staff Handbook. It describes the approach to risk management, its principles, cycle, the control framework and documentation. Cefas takes advantage of the sharing of best practice provided by Defra and its network.

7. The introduction of new staff to the system of internal control as part of a formal induction process and training scope was refreshed at the close of the year to improve the emphasis on risk management. We have identified that improved awareness at project level would help embed risk management and will be addressing that through training.

8. The risk environment had been broadly consistent this year, with the exception of the following risks:

- a) At the start of the year, key risks over inadequate Lowestoft facilities and the means of replacing them were the failure of, or significant delay to, the new-build Waveney Campus project and the ongoing maintenance risk at our Pakefield Road (Lowestoft) facilities. In December 2009, the Waveney Campus partnership was dissolved and by January 2010, consistent with mitigation planning, the decision was taken to refurbish the Pakefield Road facilities. The risk register then reflected the risk that the current facilities fail to meet operational requirements and that maintenance issues might deteriorate.
- b) There were also risks associated with the introduction of a new management information system. Following unsatisfactory testing, implementation was delayed and mitigation plans, to fall back on existing systems, were put into effect.

THE RISK AND CONTROL FRAMEWORK

9. In Cefas, the main processes in place for identifying, evaluating and managing risk are:

- ▶ the CMB setting the priorities for risk in key business areas by prioritising and delegating specific activity to identify, evaluate and review the risks facing Cefas
- ▶ a risk management plan and a register of top Cefas risks reported at each CMB meeting, with mitigating action plans assigned to and managed by individual managers
- ▶ risk management and business continuity planning by Divisional Directors and Corporate Centre Group Managers
- ▶ discussion in meetings at all levels of Cefas management
- ▶ a system of internal controls based on a framework of regular management information and administrative procedures in which Cefas' objectives are embedded as personal objectives for CMB members, who in turn cascade these throughout the organisation
- ▶ application of the standard contract-tendering procedures to manage the risk inherent in this activity (with system improvements to this procedure during the year)

- ▶ specific project management processes governing all projects and an IT system designed to monitor resource and performance. Corporate projects are subject to Office of Government Commerce (OGC) reviews as appropriate.

10. Our management of risk is embedded in policy-making, planning and delivery by:

- ▶ leadership in the form of regular comment and instruction from myself at CMB and SMT meetings, regular reviews of actions with the CMB executive members and less formal discussion with CMB members, Divisional Directors and other managers
- ▶ advice on the content and implementation of Cefas' science strategy and the challenge to scientific evidence provided by the Cefas Science Advisory Committee
- ▶ a risk co-ordinator who meets all members of senior management individually to discuss and embed risk management
- ▶ risk management at divisional, group and team meetings
- ▶ embedding risk management in mandatory business planning and tendering procedures
- ▶ the operation of both a whistle-blowing and an anti-fraud policy, including annual written declarations by senior managers
- ▶ risk management documentation that is available to staff via an intranet site.

11. An Information Security Officer oversees the management of information risk and chairs a Security Forum that oversees control by assessing compliance with the Cabinet Office Security Policy Framework and Cefas' information security policy, facilitating the management of all security matters and informing the CMB through the Corporate Secretary.

12. To control information risk, all databases have been reviewed for data risk and, where significant risk exists, the information owners make a quarterly risk assessment and report via the Information Security Officer to Defra, as well as taking specific actions to reduce risk.

13. All laptops have been encrypted unless specifically excepted for approved reasons and encryption made available to all users of removable media devices. Papers and removable media containing information with security markings are disposed of using secure collection units by a specialist contractor.

14. Guidance on information security is promulgated internally, generally and more specifically for information owners. All staff have been trained in information security.

15. Cefas has no data-related incidents to report.

REVIEW OF EFFECTIVENESS

16. As Accounting Officer, I have responsibility for reviewing the effectiveness of the system of internal control. My review of the effectiveness of the system is informed by the work of the internal auditors and the managers within Cefas who have responsibility for the development and maintenance of the internal control framework, and comments made by the external auditors in their management letter and other reports. I am advised on the content and implementation of Cefas' science strategy by the Cefas Science Advisory Committee, comprised of two or more non-executive appointments and supported by the Cefas Chief Science Adviser and other executives.

17. I am responsible for commissioning the internal audit and technical advisory services required to ensure the proper and efficient conduct of Cefas' affairs and to discharge my responsibilities. These services comply with the objectives, standards and practices laid down by HM Treasury. Cefas receives regular reports by internal audit, to government internal audit standards, which include the Head of Internal Audit's independent opinion on the adequacy and effectiveness of the agency's system of governance, internal control and the system for risk management, together with recommendations for improvement. The internal audit service has been provided by PricewaterhouseCoopers LLP. The work of internal audit is informed by an analysis of the risks to which Cefas is exposed, and annual audit plans are based on this analysis.

18. I have been advised on the implications of the result of my review of the effectiveness of the system of internal control by the CMB and its Audit and Risk Committee. This body is formed exclusively of the three external independent non-executive members of the CMB. Internal and external auditors and executives attend the meetings to report, with others attending as required by the committee. The committee meets at least quarterly and considers and provides advice on risk management, internal control and governance, financial reporting, and internal and external audit.

19. Divisional Directors report to me formally in monthly SMT meetings that review operational performance across Cefas. They provide annual written statements on internal control in their divisions to assist my review of effectiveness.

20. The most significant risk priorities managed in the Cefas risk register throughout the year concerned:

- ▶ the volatile economic climate and its impact on income and growth
- ▶ the potential failure to achieve partnership agreement with the Marine Management Organisation (MMO) and its impact on Cefas' future activity
- ▶ the commercial capability skills of Cefas and its potential to impact negatively on sales and contract management
- ▶ Waveney Campus development
- ▶ Lowestoft estate development
- ▶ the installation of a management information system, which is key to enhancing project management.

21. These risks have all been provided with written action and/or project plans that manage risk to acceptable levels. These plans are delegated to senior managers, reviewed by the CMB executive members and reported to the CMB at each quarter.

22. A plan to address weaknesses and ensure continuous improvement of the system is in place. Weaknesses are identified using the feedback from the CMB, SMT, Audit and Risk Committee, internal audit review and performance reporting, as well as through divisional management team discussion with the Risk Co-ordinator.

SIGNIFICANT INTERNAL CONTROL PROBLEMS

23. There are no significant internal control issues to report.



Richard Judge
Chief Executive

7 July 2010

CERTIFICATE AND REPORT OF THE COMPTROLLER AND AUDITOR GENERAL TO THE HOUSE OF COMMONS

I certify that I have audited the financial statements of the Centre for Environment, Fisheries and Aquaculture Science for the year ended 31 March 2010 under the Government Resources and Accounts Act 2000. These comprise the Operating Cost Statement, the Statement of Financial Position, the Statement of Changes in Taxpayers' Equity, the Statement of Cash Flows and the related notes. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Remuneration Report that is described in that report as having been audited.

RESPECTIVE RESPONSIBILITIES OF THE CHIEF EXECUTIVE AND AUDITOR

As explained more fully in the Statement of Accounting Officer's Responsibilities, as Accounting Officer the Chief Executive is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

My responsibility is to audit the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require me and my staff to comply with the Auditing Practices Board's Ethical Standards for Auditors.

SCOPE OF THE AUDIT OF THE FINANCIAL STATEMENTS

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Agency's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Agency; and the overall presentation of the financial statements.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the expenditure and income reported in the financial statements have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

OPINION ON REGULARITY

In my opinion, in all material respects, the expenditure and income have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

OPINION ON THE FINANCIAL STATEMENTS

In my opinion:

- ▶ the financial statements give a true and fair view of the state of the Agency's affairs as at 31 March 2010, and of the net operating surplus, changes in taxpayers' equity and cash flows for the year then ended; and
- ▶ the financial statements have been properly prepared in accordance with the Government Resources and Accounts Act 2000 and HM Treasury directions issued thereunder.

OPINION ON OTHER MATTERS

In my opinion:

- ▶ the part of the Remuneration Report to be audited has been properly prepared in accordance with HM Treasury directions made under the Government Resources and Accounts Act 2000; and
- ▶ the information given in three sections of the Management Commentary – Managing Delivery, Meeting Targets; Sustainable Development; and Financial Performance – included within the *Annual Report* for the financial year for which the financial statements are prepared, is consistent with the financial statements.

MATTERS ON WHICH I REPORT BY EXCEPTION

I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- ▶ adequate accounting records have not been kept; or
- ▶ the financial statements are not in agreement with the accounting records or returns; or
- ▶ I have not received all of the information and explanations I require for my audit; or
- ▶ the Statement on Internal Control does not reflect compliance with HM Treasury's guidance.

REPORT

I have audited the financial statements which are prepared on a going concern basis. The financial statements note the announcement by the Secretary of State for Environment, Food and Rural Affairs of a review of Defra arms length bodies. Notwithstanding this announcement, I am content that the basis of preparation remains appropriate and that the evidence available to me at the date of this report does not indicate that there is a material uncertainty which may cast doubt upon the Centre for Environment, Fisheries and Aquaculture Science's ability to continue as a going concern.

Amyas C E Morse

Comptroller and Auditor General

National Audit Office
157–197 Buckingham Palace Road
Victoria
London SW1W 9SP

8 July 2010

FINANCIAL
STATEMENTS OF
ACCOUNTS

03

OPERATING COST STATEMENT

FOR THE YEAR ENDED 31 MARCH 2010

		2009-10 £'000	2008-09 £'000
	Note		
Staff costs	3	22,272	20,556
Other administrative costs	4	34,875	36,520
Operating income	5	(57,347)	(57,100)
Net operating surplus		<u>(200)</u>	<u>(24)</u>

STATEMENT OF FINANCIAL POSITION

AS AT 31 MARCH 2010

		31 March 2010		31 March 2009 (Restated)	1 April 2008 (Restated)
	Note	£'000	£'000	£'000	£'000
Non-current assets					
Property, plant and equipment	7		44,670	46,951	50,538
Intangible assets	8		433	389	67
Investments	10		150	150	150
Total non-current assets			45,253	47,490	50,755
Current assets					
Assets held for sale		0		400	0
Trade receivables	12	2,201		2,947	3,267
Other current assets	12	7,898		5,492	2,907
Cash and cash equivalents	13	11,680		11,611	9,561
Total current assets			21,779	20,450	15,735
Total assets			67,032	67,940	66,490
Current liabilities					
Trade payables	14	0		(2,633)	(283)
Other current liabilities	14	(14,224)		(11,160)	(10,447)
Provisions	15	(2,522)		(2,144)	(1,698)
Total current liabilities			(16,746)	(15,937)	(12,428)
Non-current assets plus/less net current assets/liabilities			50,286	52,003	54,062
Non-current liabilities					
Provisions	15		(3,267)	(2,778)	(1,532)
Assets less liabilities			47,019	49,225	52,530
Taxpayers' equity					
General Fund			35,530	37,368	40,536
Revaluation Reserve			11,489	11,857	11,994
Total taxpayers' equity			47,019	49,225	52,530

The Notes on pp 54–71 form part of these accounts.



Richard Judge
Chief Executive and Agency Accounting Officer

7 July 2010

STATEMENT OF CHANGES IN TAXPAYERS' EQUITY FOR THE YEAR ENDED 31 MARCH 2010

	General Fund £'000	Revaluation Reserve £'000	Total £'000
Balance at 31 March 2008	41,315	11,994	53,309
Changes in accounting policy	(779)		(779)
Restated balance at 1 April 2008	<u>40,536</u>	<u>11,994</u>	<u>52,530</u>
Changes in taxpayers' equity for 2008–09			
Notional charges	49	0	49
Cost of capital	1,759	0	1,759
Revaluation	0	(137)	(137)
Income and expenditure account	24	0	24
Total recognised income and expense for 2008–09	<u>1,832</u>	<u>(137)</u>	<u>1,695</u>
Excess cash funding repayable to Defra	(5,000)	0	(5,000)
Balance at 31 March 2009	<u>37,368</u>	<u>11,857</u>	<u>49,225</u>
Changes in taxpayers' equity for 2009–10			
Notional charges	50	0	50
Cost of capital	1,624	0	1,624
Defra estate charges	3,196	0	3,196
Asset additions	92	0	92
Revaluation	0	(368)	(368)
Income and expenditure account	200	0	200
Total recognised income and expense for 2009–10	<u>5,162</u>	<u>(368)</u>	<u>4,794</u>
Excess cash funding repayable to Defra	(7,000)	0	(7,000)
Balance at 31 March 2010	<u>35,530</u>	<u>11,489</u>	<u>47,019</u>

STATEMENT OF CASH FLOWS

	2009–10		2008–09	
	£'000	£'000	£'000	£'000
Net operating income		200		24
Adjustments for non-cash transactions				
Depreciation charges	3,446		3,618	
Amortisation	0		67	
Impairment	344		520	
Notional charges	4,870		1,808	
(Profit)/loss on disposal	(6)		81	
Provisions (net of provision release)	<u>2,522</u>		<u>3,302</u>	
		11,176		9,396
(Increase) in receivables	(1,660)		(2,265)	
Increase in payables	<u>456</u>		<u>3,325</u>	
		(1,204)		1,060
Use of provisions		(1,655)		(1,610)
Net cash inflow from operating activities		<u>8,517</u>		<u>8,870</u>
Cash flows from investing activities				
Purchase of property, plant and equipment	(1,875)		(1,387)	
Purchase of intangible assets	(44)		(433)	
Proceeds of disposal of property, plant and equipment	471		0	
Proceeds of disposal of intangibles	<u>0</u>		<u>0</u>	
Net cash flow from investing activities		(1,448)		(1,820)
Cash flows from financing activities				
Excess cash funding repaid to Defra	<u>(7,000)</u>		<u>(5,000)</u>	
		(7,000)		(5,000)
Net financing				
Net increase cash and cash equivalents in the period		<u>69</u>		<u>2,050</u>
Cash and cash equivalents at the beginning of the year		11,611		9,561
Cash and cash equivalents at the end of the year		<u>11,680</u>		<u>11,611</u>

NOTES TO THE ACCOUNTS

NOTE 1. STATEMENT OF ACCOUNTING POLICIES

1.1 Statement of accounting policies

The financial statements have been prepared in accordance with the 2009–10 *Government Financial Reporting Manual* (FRoM) issued by HM Treasury. The accounting policies contained in the FRoM apply International Financial Reporting Standards (IFRS), as adapted or interpreted for the public sector context, and comply with the guidelines issued by the International Financial Reporting Interpretations Committee (IFRIC).

Where the FRoM permits a choice of accounting policy, a judgment has been made to select the most appropriate policy to suit Cefas' particular circumstances, for the purpose of giving a true and fair view. Cefas' accounting policies have been applied consistently in dealing with items that are considered material in relation to the accounts.

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities, and the reported amount of income and expenditure. All estimates are based on knowledge of current facts and circumstances, assumptions concerning past events, and forecasts of future events and actions. Actual results may differ from these estimates.

1.2 Accounting convention

These accounts have been prepared under the historical cost convention, modified to account for the revaluation of property, plant and equipment, intangible assets, financial instruments and, where material, inventories. In the absence of any specific proposals for Cefas arising from the review of Defra delivery bodies, the accounts have been prepared on a going concern basis.

1.3 Scheme costs and grants

EC income is accrued where the related expenditure has been accrued and is deferred where the related expenditure has been pre-paid.

1.4 Property, plant and equipment

1.4.1 Freehold land and buildings

Freehold land and buildings are stated at their depreciated replacement cost and are professionally revalued at least every five years at existing use value, in accordance with guidance issued by the Royal Institute of Chartered Surveyors. The last revaluation took place in 2010.

Non-specialised properties are revised annually by means of a desk-top review, undertaken by the Valuation Office, where every valuation is reviewed having regard to local and national indices and local knowledge. Specialised properties are updated

annually by adopting the Building Cost Information Service All-in Tender Price Index supplied by the Royal Institute of Chartered Surveyors.

Non-property tangible assets have been stated at fair value using appropriate indices provided by the Office of National Statistics.

The minimum level of capitalisation in Cefas is £2,000.

Subsequent expenditure is capitalised if the criteria for initial capitalisation are met, that is if it is probable that economic benefits will flow to Cefas, and that the cost of the expenditure can be reliably measured.

1.4.2 Depreciation

Depreciation is provided at rates calculated to write off the valuation of freehold buildings and other items of property, plant and equipment on a straight-line basis over the estimated useful life of the asset, and is charged in the month of disposal but not in the month of purchase. Depreciation is not charged on assets "held for sale", freehold land and assets under the course of construction.

Lives are normally in the following ranges:

Freehold buildings	4–60 years
Property on historic lease	remaining life of lease
Scientific equipment	5–15 years
IT hardware	3–6 years
Furniture and fittings	3–30 years
Vehicles, plant and machinery	4–25 years
Office equipment	5–11 years
Vessels	15–30 years

1.4.3 Non-current assets classified as held for sale

Non-current assets are classified as held for sale if their carrying amount is to be recovered principally through a sale transaction rather than through continuing use. Depreciation ceases immediately on the classification of the assets as surplus. They are stated at the lower of their carrying amount and fair value less costs to sell. They are recorded in the "current" section of Cefas' Statement of Financial Position.

1.5 Intangible non-current assets

These comprise software licences and internally developed IT software, including construction in progress (CIP).

In addition, Cefas holds various software licences, which were capitalised at purchase cost where this exceeds capitalisation thresholds. Such assets are revalued only where it is possible to obtain a reliable estimate of their market value. They are reviewed annually for any impairment, to ensure they are not carried in the Statement of Financial Position above their recoverable amounts.

Internally generated assets are recognised as CIP, and not amortised or revalued until the completed asset is brought into service. The costs are classified as relating to either research or development phases. Cefas' expenditure on research activities is written off to the Operating Cost Statement as incurred, due to the inherent uncertainty surrounding the economic benefit resulting from it. Capitalisation of development costs is contingent on fulfilment of the criteria noted in IAS 38 (intangible assets).

1.6 Amortisation

Intangible assets are amortised at rates calculated to write off the value of software on a straight-line basis over the estimated useful life of the asset and charged in the month of disposal but not in the month of purchase. Assets under development or during the implementation phase are not subject to amortisation.

Lives are normally in the following ranges:

IT software	2–12 years
Software licences	5–20 years

1.7 Impairment

The carrying amounts of Cefas' tangible and finite-life intangible assets are reviewed at each reporting date and the estimated recoverable amount of the assets are compared to their carrying amount. If the carrying amount exceeds the recoverable amount, an impairment loss is immediately recognised. The recoverable amount is the greater of the fair value less costs to sell, and the value in use. The value in use is an estimate of the future cash-flow benefits expected to derive from the asset, discounted by a rate that reflects current market assessments of the time-value of money and the risks specific to the asset.

1.8 Investments

Investments are reported at market value or at cost where market value cannot be readily ascertained. In accordance with the FReM, the fixed-asset investment has not been consolidated as it is outside the departmental boundary.

1.9 Research and development (R&D)

Expenditure on R&D (seedcorn projects) is treated as an operating cost in the year in which it is incurred and taken to the income and expenditure account. Assets acquired for use in R&D are depreciated over their useful economic life.

1.10 Operating income (turnover)

Operating income (turnover) is shown net of value-added tax (VAT) and comprises fees and charges for services provided to core Defra, external customers, other government agencies and public-sector repayment work receipts from the EU.

Turnover is recognised over the term of the individual contract in line with work done.

1.11 Capital charge

A charge reflecting the cost of capital utilised by Cefas is included in operating costs. The charge is calculated at the real rate set by HM Treasury, currently 3.5% (2008–09: 3.5%), on the average carrying amount on all assets less liabilities, except for cash balances with the Office of the Paymaster General.

1.12 Financial instruments

1.12.1 Financial assets

Cefas holds receivables and available-for-sale assets in this category.

Receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Receivables are carried in the Statement of Financial Position at cost less appropriate provisions for specific doubtful receivables.

Available-for-sale assets are non-derivative financial assets that are classed as available for sale on initial recognition, or are not categorised in line with any other financial asset classification. They include cash and cash equivalents, and the entire share capital of Cefas Technology Limited (CTL). All unrealised gains or losses are set against equity reserves, with gains or losses on disposal recognised in the Operating Cost Statement.

1.12.2 Financial liabilities

These comprise trade and other payables and other financial liabilities. They are initially recognised at the fair value of consideration received, less directly attributable transaction costs. They are subsequently measured at amortised cost.

1.13 Employee benefits

1.13.1 Pensions

Pension benefits are provided through the civil service pension arrangements, full details of which can be found in the Remuneration Report and in Note 3(c).

Although the Principal Civil Service Pension Scheme (PCSPS) is a defined-benefit scheme, departments, agencies and other bodies covered by the scheme recognise the cost of the elements on a systematic and rational basis over the period during which it benefits from employees' services by payment to the PCSPS of amounts calculated on an accruing basis. Liability for payment of future benefits is a charge on PCSPS. In respect of defined contribution schemes, Cefas recognises the contributions payable for the year.

Cefas recognises a liability in respect of any deficit, being the excess of the present value of the scheme's liabilities over the value of the assets in the scheme, to the extent that Cefas has a legal or constructive obligation to make good the deficit in the scheme.

NOTES TO THE ACCOUNTS

1.13.2 Other employee benefits

Cefas recognises a liability and expense for all other employee benefits, including unused annual leave, accrued at the reporting date, provided these amounts are material in the context of the overall staff costs.

Termination benefits are recognised as a liability when Cefas has a binding commitment to terminate the employment of an employee or group of employees before the normal retirement date, or as a result of an offer to encourage voluntary redundancy.

1.13.3 Early retirement costs

Cefas is required to meet the additional costs of benefits beyond the normal PCSPS benefits in respect of employees who retire early. Cefas provides in full for this cost when the early retirement programme has been announced and is binding on the agency. Cefas may, in certain circumstances, settle some or all of its liability in advance by making a payment to the Paymaster General's account at the Bank of England for the credit of the Civil Superannuation Vote. The amount provided is shown net of any such payments.

Further information is provided in Note 15.

1.14 Judgments

Property, plant and equipment are valued using Modified Historic Cost accounting. In the process of applying Cefas' accounting policies, management has made the following judgments, apart from those involving estimations, which have the most significant effect on the amounts recognised in the financial statements:

1.14.1 Indexation of non-current assets

Cefas restates the non-current tangible and intangible assets using the Modified Historic Cost Adjustment each year. Depreciation of these assets is spread across the deemed useful economic life, which also requires the use of judgment.

1.14.2 Employee benefit accrual

Cefas recognises a liability and expense for unused annual leave which is accrued to individual staff members at the reporting date in accordance with IAS 19 "Employee Benefits". This requires the use of estimation and judgment.

1.14.3 Accrued and deferred income from contracts

Cefas calculates the balance of accrued income on contracts where income has been received prior to contracts being fully complete. A balance of deferred income is also calculated from contracts where contracts have been completed in advance of income being received.

1.15 Provisions

Cefas provides for obligations arising from past events where it has a present obligation at the reporting date, and where it is probable that it will be required to settle the obligation and a reliable estimate can be made. Where material, the future costs have been discounted using the rate of 2.2%, as directed by HM Treasury.

Cefas considers that an obligation arises in relation to payments made on schemes regulated by the EC when a breach in the EC's regulations has been identified, and moreover that it is probable this breach will lead to financial corrections, known as disallowances, and a reliable estimate can be made.

The short-term commitments relating to expected spending within one year are presented under current liabilities.

1.16 Leases

A finance lease is one that transfers substantially all the risks and rewards of ownership to the lessee. If a leasing arrangement is in force for a substantial period of the useful expected life of the asset, then the lessee is assumed to carry all of the risk. An operating lease is a lease other than a finance lease.

The determination of whether an arrangement is, or contains, a lease is based on the substance of that arrangement. This assessment is based on whether the arrangement is dependent on the use of a specific asset and conveys the right to use the asset. Cefas evaluates contractual arrangements in accordance with the above criteria.

Both the asset value and liability to pay future rentals under a finance lease are discounted at the interest rate implicit in the lease to derive the present value. Assets obtained under a finance lease are revalued and depreciated. Cefas does not have material finance lease commitments.

All payments under operating leases are charged to the Operating Cost Statement as they are incurred.

1.17 Taxation

No taxation is payable on the surplus generated by Cefas.

1.17.1 Value-added tax (VAT)

Most of Cefas' activities are outside the scope of VAT. In general, output tax does not apply and input tax on purchases is not recoverable. Some recoveries of input tax do take place under the contracted-out services provisions applicable to government departments. Irrecoverable VAT is charged to the relevant expenditure category or included in the capitalised purchase cost of fixed assets. Where output tax is charged, or input tax is recoverable, the amounts are stated net of VAT.

1.18 Contingent liabilities

In addition to contingent liabilities disclosed in accordance with IAS 37 (provisions, contingent liabilities and contingent assets), Cefas discloses, for parliamentary reporting and accountability purposes, certain statutory and non-statutory contingent liabilities where the likelihood of a transfer of economic benefit is remote.

Where the time-value of money is material, contingent liabilities are stated at discounted amounts (discount rate 3.5%) and the amount reported to Parliament separately noted. Contingent liabilities that are not required to be disclosed by IAS 37 are stated at the amounts reported to Parliament.

Further information is provided in Note 18.

1.19 Consolidated Statement of Operating Costs by divisional strategic objectives

The Consolidated Statement of Operating Costs by divisional strategic objective (DSO) reports income against each of Cefas' four DSOs.

Cefas' expenditure and income is mapped using the costs centres relevant to one of its four DSOs.

1.20 Notional charges

In addition to the capital charge, the following notional costs borne on the income and expenditure account are credited to the General Fund:

- ▶ Defra maintenance charges
- ▶ Defra central overhead charges
- ▶ audit fee
- ▶ redundancy and early retirement
- ▶ interest.

1.21 Insurance

Cefas, in common with other government bodies, does not insure the majority of its assets. Losses and compensations are charged to the income and expenditure account.

1.22 Doubtful debt provision

A provision is held against specific debtor balances.

1.23 Disclosure of IFRSs in issue not yet effective

Cefas has reviewed the IFRSs in issue but not yet effective, to determine if it needs to make any disclosures in respect of those new IFRSs that are or will be applicable. References to "new IFRSs" includes new Interpretations and any new amendments to IFRSs and Interpretations. It has been determined the following new IFRSs are relevant to Cefas but will have no significant impact on the financial statements:

Amendments to IFRSs:

- ▶ IAS 24 Related Party Disclosures

Amendments to IFRSs resulting from Annual

Improvements to IFRSs (May 2008 and April 2009):

- ▶ IAS 7 Statement of Cash Flows
- ▶ IAS 17 Leases.

NOTE 2. FIRST-TIME ADOPTION OF IFRS

GAAP adjustment	General Fund £'000	Revaluation Reserve £'000
Taxpayers' equity at 31 March 2009 under UK GAAP	38,160	11,857
Adjustment for employee benefit obligations	(792)	0
Taxpayers' equity at 31 March 2009 under IFRS	<u>37,368</u>	<u>11,857</u>
		2008-09 £'000
Net operating income for the year under UK GAAP		(37)
Adjustment for employee benefit obligations		13
Net operating income for the year under IFRS		<u>(24)</u>

There is no adjustment to the reported cash flows between UK GAAP and IFRS.

The employee benefit obligations adjustment relates to an accrual for untaken annual leave, which was not included in the 2008-09 accounts under UK GAAP.

NOTES TO THE ACCOUNTS

NOTE 3. STAFF-RELATED EXPENDITURE

(a) Staff costs

	Permanently employed staff £'000	Temporarily employed staff £'000	2009–10 Total £'000	2008–09 Total £'000
Wages and salaries	16,809	1,410	18,219	16,536
Social Security costs	1,224	0	1,224	1,165
Superannuation	2,829	0	2,829	2,855
Sub-total	20,862	1,410	22,272	20,556
Less recoveries in respect of outward secondments	(305)	0	(305)	0
Total net costs	20,557	1,410	21,967	20,556

Included in the staff costs for permanently employed staff for 2009–10 is a charge for the increase in untaken leave and leave in lieu balances of £9,000 in year to a total of £801,000.

The salary and pension entitlements of Cefas' senior managers and an explanation of pension benefits are included in the Remuneration Report.

The Principal Civil Service Pension Scheme (PCSPS) is an unfunded multi-employer defined-benefit scheme but Cefas is unable to identify its share of the underlying assets and liabilities. The scheme actuary valued the scheme as at 31 March 2007. You can find details in the resource accounts of the Cabinet Office: Civil Superannuation website (www.civilservice-pensions.gov.uk).

For 2009–10, employer contributions of £2,829,000 were payable to the PCSPS (2008–09: £2,855,000) at one of four rates in the range 16.7% to 24.3% of pensionable pay, based on salary bands (the rates in 2008–09 were between 17.1% and 25.5%).

The scheme's actuary reviews employer contributions every four years following a full scheme valuation. From 2010–11 the rates will be in the range 16.7% to 24.3%.

The contribution rates are set to meet the cost of the benefits accruing during 2009–10 to be paid when the member retires, and not the benefits paid during this period to existing pensioners. Employees can opt to open a Partnership Pension Account, a stakeholder pension with an employer contribution. Employer contributions of £1,000 (2008–09: £1,000) were paid to one or more of a panel of three appointed stakeholder pension providers. Employer contributions are age-related and range from 3% to 12.5% of pensionable pay. Cefas also matches employee contributions up to 3% of pensionable pay.

Contributions due to the partnership pension providers at the reporting date were £NIL (2008–09: £NIL) and contributions pre-paid at that date were £NIL (2008–09: £NIL).

No individuals retired early on ill-health grounds during the year and therefore no additional pension liabilities have been accrued for this purpose.

(b) The average number of people employed by Cefas during the year

	Employed staff	Others	2009–10 Total	2008–09 Total
Staff resource	523	26	549	534
Total	523	26	549	534

(c) Pension benefits

Pension benefits are provided through the civil service pension (CSP) arrangements. From 1 October 2002, civil servants may be in one of three statutory-based "final salary" defined-benefit schemes (Classic, Premium or Classic Plus). The schemes are unfunded with the cost of benefits met by monies voted by Parliament each year. Pensions payable under Classic, Premium and Classic Plus are increased annually in line with changes in the Retail Prices Index. New entrants after 1 October 2002 may choose between membership of Premium or joining a good-quality "money purchase" stakeholder arrangement with a significant employer contribution (the Partnership Pension Account).

Employee contributions are set at the rate of 1.5% of pensionable earnings for Classic and 3.5% for Premium and Classic Plus. Benefits in Classic accrue at the rate of 1/80th of pensionable earnings for each year of service. In addition, a lump-sum equivalent to three years' pension is payable on retirement. For Premium, benefits accrue at the rate of 1/60th of pensionable earnings for each year of service. Unlike Classic, there is no automatic lump sum but members may give up (commute) some of their pension to provide a lump sum. Classic Plus is essentially a variation of Premium, but with benefits in respect of service before 1 October 2002 calculated broadly as per Classic.

The Partnership Pension Account is a stakeholder-pension arrangement. The employer makes a basic contribution of between 3% and 12.5% (depending on the age of the member) into a stakeholder-pension product chosen by the employee. The employee does not have to contribute but where they do make contributions, the employer will match these up to a limit of 3% of pensionable salary (in addition to the employer's basic contribution). Employers also contribute a further 0.8% of pensionable salary to cover the cost of centrally provided risk-benefit cover (death in service and ill-health retirement).

Further details about the CSP arrangements can be found at this website:
www.civilservice-pensions.gov.uk.

The cash equivalent transfer value (CETV) is the actuarially assessed capitalised value of the pension-scheme benefits accrued by a member at a particular point in time. The benefits are the member's accrued benefits and any contingent spouse's pension payable from the scheme. A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another pension scheme or arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme. The pension figures shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies. The CETV figures include the value of any pension benefit in another scheme or arrangement that the individual has transferred to the CSP arrangements and for which the civil service Vote has received a transfer payment commensurate to the additional pension liabilities being assumed. They also include any additional pension benefit accrued to the member as a result of their purchasing additional years of pension service in the scheme at their own cost.

The real increase in the value of the CETV reflects the increase in CETV effectively funded by the employer. It takes account of the increase in accrued pension due to inflation and contributions paid by the employee (including the value of any benefits transferred from another pension scheme arrangement), and uses common market valuation factors for the start and end of the period.

CETVs are calculated within the guidelines and framework prescribed by the Institute and Faculty of Actuaries.

The pension entitlements of Cefas' most senior managers are shown on p 41 of this report.

(d) Early departure costs

Early departure costs paid in 2009–10 amounted to £1,171,000 (2008–09: £1,332,000), exclusive of employer's contributions to National Insurance and superannuation, for lieu of notice and compensation for loss of pension.

NOTES TO THE ACCOUNTS

NOTE 4. OTHER ADMINISTRATION COSTS

	Notes	2009-10 £'000	2008-09 (Restated) £'000
(a) Direct sub-contracting costs		7,018	7,571
(b) Facilities management			
Vessels - management		4,089	3,424
Facilities management		3,439	3,644
Charters		263	746
		<u>7,791</u>	<u>7,814</u>
(c) Others			
Laboratory consumables		2,779	2,974
Facility developments*		2,505	1,848
Accommodation		513	328
Travel and subsistence		1,886	1,821
IT costs		1,844	1,499
Relocation and severance expenses		(327)	338
Professional charges and fees		958	1,011
Recruitment and training		779	715
Telecommunications		133	138
Postage		256	215
Stationery and printing		198	196
Library purchases		132	215
Early departure and related costs		(114)	174
Provision provided for in year	15	2,514	3,310
Exchange gains	11	(1)	(145)
Other expenditure		215	241
Doubtful debt provision		19	95
(Profit)/loss on disposal of fixed assets		(6)	81
Internal audit		33	28
External audit – Statutory audit		50	40
– IFRS preparations		8	9
		<u>14,375</u>	<u>15,131</u>
(d) Departmental recharges			
Defra management overheads		277	41
(e) Depreciation, amortisation and revaluation losses			
Depreciation		3,446	3,618
Impairment		344	520
Amortisation		0	67
		<u>3,790</u>	<u>4,205</u>
(f) Cost of capital charge	11.2	1,624	1,758
Total expenditure		<u><u>34,875</u></u>	<u><u>36,520</u></u>

* Facility developments costs accrued include those relating to the aborted Waveney Campus project. Further details are provided at Note 21.

NOTE 5. INCOME

	2009-10 £'000	2008-09 £'000
Advice, evidence and research	54,004	53,341
European Union		
Expenditure met by Cefas	1,386	2,501
Cefas as agent for the EU	1,957	1,258
	<u>57,347</u>	<u>57,100</u>
European Union outsourced work	<u>(1,957)</u>	<u>(1,258)</u>

NOTE 6. SEGMENTAL REPORT

IFRS 8 is to be applied for annual periods beginning on or after 1 January 2009. Cefas has chosen to apply the standard from 1 April 2008.

Income was earned from the following business segments:

	2009-10 £'000	2008-09 £'000
Operating income		
Core Defra	38,787	37,426
Defra network	3,109	3,072
Public sector	6,688	6,888
EU	3,294	3,757
Industry and other	5,469	5,957
Total	<u>57,347</u>	<u>57,100</u>
Contribution towards indirect overheads		
Core Defra	6,622	7,960
Defra network	861	710
Public sector	2,012	2,037
EU	105	659
Industry and other	1,287	1,303
Total	<u>10,887</u>	<u>12,669</u>
Indirect overheads	(10,687)	(12,645)
Net (cost)/surplus	<u>200</u>	<u>24</u>

NOTES TO THE ACCOUNTS

NOTE 7. PROPERTY, PLANT AND EQUIPMENT

	Land and buildings	Vessels	Information technology
Cost or valuation	£'000	£'000	£'000
At 1 April 2009	29,572	30,994	3,387
Indexation	0	425	0
Revaluation	(775)	0	0
Additions	184	0	177
Transfers	92	0	0
Disposals	0	0	(30)
At 31 March 2010	29,073	31,419	3,534
Depreciation			
At 1 April 2009	(12,116)	(6,179)	(2,678)
Indexation	0	(85)	0
Revaluation	0	0	0
Provided in year	(1,125)	(1,047)	(224)
Impairment	(118)	(226)	0
Transfers	0	0	0
Disposals	0	0	30
At 31 March 2010	(13,359)	(7,537)	(2,872)
Net book value			
At 31 March 2010	15,714	23,882	662
At 31 March 2009	17,456	24,815	709
Owned	15,714	23,882	662
	Land and buildings	Vessels	Information technology
Cost or valuation	£'000	£'000	£'000
At 1 April 2008	32,525	31,411	3,626
Indexation	0	(417)	61
Revaluation	0	0	0
Additions	67	0	160
Transfers	(3,020)	0	0
Disposals	0	0	(460)
At 31 March 2009	29,572	30,994	3,387
Depreciation			
At 1 April 2008	(12,828)	(5,215)	(2,845)
Indexation	0	68	(24)
Revaluation	0	0	0
Provided in year	(1,388)	(1,032)	(196)
Impairment	(520)	0	0
Transfers	2,620	0	0
Disposals	0	0	387
At 31 March 2009	(12,116)	(6,179)	(2,678)
Net book value			
At 31 March 2009	17,456	24,815	709
At 1 April 2008	19,697	26,196	781
Owned	17,456	24,815	709

Land and buildings were revalued with effect from 31 March 2010 by the Valuation Office Agency, 50 Frederick Street, Edinburgh. The assets were revalued on an "existing use" basis. This valuation and, where applicable, management judgments of impairment have been used in preparing the accounts up to 31 March 2010.

Scientific equipment £'000	General equipment £'000	Assets in course of construction £'000	Total £'000	Assets held for sale £'000
12,443	1,000	0	77,396	400
91	12	0	528	0
0	0	0	(775)	0
1,433	18	38	1,850	0
0	0	0	92	0
(564)	(1)	0	(595)	(400)
13,403	1,029	38	78,496	0
(8,617)	(855)	0	(30,445)	0
(32)	(4)	0	(121)	0
0	0	0	0	0
(974)	(76)	0	(3,446)	0
0	0	0	(344)	0
0	0	0	0	0
499	1	0	530	0
(9,124)	(934)	0	(33,826)	0
4,279	95	38	44,670	0
3,826	145	0	46,951	400
4,279	95	38	44,670	0
Scientific equipment £'000	General equipment £'000	Assets in course of construction £'000	Total £'000	Assets held for sale £'000
11,585	886	81	80,114	0
259	20	0	(77)	0
0	0	0	0	0
898	125	(81)	1,169	0
0	0	0	(3,020)	3,020
(299)	(31)	0	(790)	0
12,443	1,000	0	77,396	3,020
(7,888)	(800)	0	(29,576)	0
(96)	(8)	0	(60)	0
0	0	0	0	0
(924)	(78)	0	(3,618)	0
0	0	0	(520)	0
0	0	0	2,620	(2,620)
291	31	0	709	0
(8,617)	(855)	0	(30,445)	(2,620)
3,826	145	0	46,951	400
3,697	86	81	50,538	0
3,826	145	0	46,951	400

NOTES TO THE ACCOUNTS

NOTE 8. INTANGIBLE ASSETS

Intangible assets comprise software licences.

	Information technology £'000
Cost or valuation	
At 1 April 2009	675
Indexation	0
Revaluation	0
Additions	44
Transfers	0
Disposals	0
At 31 March 2010	719
Amortisation	
At 1 April 2009	(286)
Indexation	0
Revaluation	0
Provided in year	0
Impairment	0
Transfers	0
Disposals	0
At 31 March 2010	(286)
Net book value	
At 31 March 2010	433
At 31 March 2009	389
Owned	433
	Information technology (Restated) £'000
Cost or valuation	
At 1 April 2008	286
Indexation	0
Revaluation	0
Additions	389
Transfers	0
Disposals	0
At 31 March 2009	675
Amortisation	
At 1 April 2008	(219)
Indexation	0
Revaluation	0
Provided in year	(67)
Impairment	0
Transfers	0
Disposals	0
At 31 March 2009	(286)
Net book value	
At 31 March 2009	389
At 31 March 2008	67
Owned	389

NOTE 9. IMPAIRMENTS

Property, plant and equipment	2009-10 £'000	2008-09 £'000
Shellfish laboratory sold 30 March 2010 Impairment charge to operating costs	<u>0</u>	<u>300</u>
Lowestoft laboratory Impairment charge to operating costs	<u>118</u>	<u>220</u>
Research vessel rescue boats Impairment charge to operating costs	<u>226</u>	<u>0</u>

For the above assets the expected market value has fallen below the original cost and therefore the indexation reserves have been fully exhausted.

NOTE 10. FIXED-ASSET INVESTMENTS

Cost	£'000
At 31 March 2009	150
Additions	0
Disposals	<u>0</u>
At 31 March 2010	<u>150</u>
Provisions	
At 31 March 2009	0
Movement	<u>0</u>
At 31 March 2010	<u>0</u>
Net book value	
At 31 March 2010	<u>150</u>
At 31 March 2009	<u>150</u>

In 2001, Cefas purchased the entire share capital of Cefas Technology Limited (CTL) for £150,000.

The Cefas Management Board (CMB) has considered the value of the investment and has recorded the investment at cost. This will be reviewed on a regular basis and provision made for any impairment in value.

In accordance with the FReM, the fixed-asset investment has not been consolidated as it is outside the departmental boundary.

Cefas' pre-audited share of the net assets and results of the above investment are as follows:

	2009-10 £'000	Restated* 2008-09 £'000
Net assets at 31 March	834	776
Turnover	387	324
Profit/(loss) (before tax) for the year	69	(85)

* The restatement reflects audited results.

NOTES TO THE ACCOUNTS

NOTE 11. FINANCIAL INSTRUMENTS

As the majority of Cefas' cash requirements are met through the Defra high-level agreement, financial instruments play a more limited role in creating and managing risk than would apply to a non-public-sector body. The majority of financial instruments relate to contracts to buy non-financial items in line with Cefas' expected purchase and usage requirements. Cefas is therefore exposed to little credit, liquidity or market risk.

	Receivables	Other financial liabilities
	£'000	£'000
Balance at 31 March 2010		
Cash and cash equivalents	11,680	0
Trade and other receivables	7,581	0
Trade and other payables	<u>0</u>	<u>(675)</u>
	<u>19,261</u>	<u>(675)</u>
Balance at 31 March 2009		
Cash and cash equivalents	11,611	0
Trade and other receivables	5,241	0
Trade and other payables	<u>0</u>	<u>(3,554)</u>
	<u>16,852</u>	<u>(3,554)</u>
Balance at 31 March 2008		
Cash and cash equivalents	9,561	0
Trade and other receivables	3,790	0
Trade and other payables	<u>0</u>	<u>(1,028)</u>
	<u>13,351</u>	<u>(1,028)</u>

Cash Represents money with government and UK commercial banks, the majority being held with government to minimise risk.

Trade and other receivables Represents contracts for monies or services due. Less than 30% of this total is a non-government credit risk. This amount is net of a doubtful debt provision of £194,000 (2008–09: £175,000) representing specific debts.

Foreign exchange risk Around 7% of receipts from customers are in foreign currencies, and certain goods and services are purchased in foreign currencies. This is believed to be a low-level risk, and the policy is to accept the net conversion risk of euros and US dollars, or closely linked currencies. We manage our own collections risk and reduce our exposure to foreign currencies by netting receipts and payments in the same currencies before translating any remaining funds to pounds sterling.

11.1 Prompt-payment policy

Cefas has a duty to meet the HM Treasury ten-day payment policy. During the year, the percentage of invoices that met the policy is as below:

	2009-10 %	2008-09 %	2007-08 %
Quarter 1	96	94	96
Quarter 2	99	93	94
Quarter 3	96	94	95
Quarter 4	99	89	86
Average percentage of invoices paid within ten days	97	92	92

No interest was paid in respect of late payment of commercial debt (2008-09: £NIL).

The trade payable outstanding at 31 March 2010 as a proportion of our total purchases from suppliers during the year was equivalent to nil days trading (2008-09: 33 days).

11.2 Cost of capital

	2009-10 £'000	2008-09 £'000	2007-08 £'000
Interest relating to fixed assets	1,624	1,758	1,709
Total cost of capital	1,624	1,758	1,709

Interest calculated on working capital is £NIL (2008-09: £NIL).

11.3 Foreign exchange

Transactions that are denominated in a foreign currency are translated into sterling at the average exchange rate set for the year ruling or a rate agreed for a specific project. Balances held in foreign currencies are translated at the rate of exchange ruling at the date of the Statement of Financial Position.

Exchange differences comprise:

	2009-10 Gain/(loss)	2008-09 Gain
Arising at a transactional level	(£5,000)	£8,000
Resulting from translation	£6,000	£137,000

NOTES TO THE ACCOUNTS

NOTE 12. TRADE RECEIVABLES AND OTHER CURRENT ASSETS

	2009-10 £'000	2008-09 £'000	2007-08 £'000
Amounts falling due within one year			
Trade receivables	2,201	2,947	3,267
Other receivables:			
VAT	96	137	62
Defra	5,284	2,157	461
Accrued income EU	896	804	241
Pre-payments and accrued income	1,598	2,385	2,131
Sundry receivables	24	9	12
	7,898	5,492	2,907

Intra-government receivable balances as at 31 March 2010 with the following bodies were: other central government bodies £5,397,000 (2008-09: £3,946,000), local authorities £NIL (2008-09: £65,000), bodies external to government £4,702,000 (2008-09: £4,428,000).

NOTE 13. CASH AND CASH EQUIVALENTS

	2009-10 £'000	2008-09 £'000	2007-08 £'000
Balance at 1 April	11,611	9,561	7,143
Net change in cash and cash equivalent balances	69	2,050	2,418
Balance at 31 March	11,680	11,611	9,561

The following balances at 31 March were held at:

	2009-10 £'000	2008-09 £'000	2007-08 £'000
Office of HM Paymaster General	10,819	10,831	9,248
Commercial banks and cash in hand	861	780	313
Total cash at bank and in hand	11,680	11,611	9,561

NOTE 14. TRADE PAYABLES AND OTHER CURRENT LIABILITIES

	2009-10 £'000	2008-09 £'000	2007-08 £'000
Amounts falling due within one year			
Trade payables	0	2,633	283
Other taxation and Social Security	397	371	363
Accruals	8,183	5,016	4,950
Defra	0	271	123
Other payables	278	279	259
Deferred income	2,432	1,988	2,030
Deferred income Defra	2,934	3,235	2,722
Total under-one-year creditors	14,224	11,160	10,447

Other payables include employee pension contributions as at 31 March 2010 totalling £278,000 (2008-09: £278,000).

Intra-government payable balances as at 31 March 2010 with the following bodies were: other central government bodies £3,067,000 (2008-09: £4,421,000), local authorities £NIL (2008-09: £4,000), public corporations and trading funds £NIL (2008-09: £8,000), bodies external to government £11,157,000 (2008-09: £9,360,000).

NOTE 15. PROVISIONS FOR LIABILITIES AND CHARGES

	Balance at 1 April 2008	Balance at 1 April 2009	Provided in the year	Utilised in the year	Transfer/ release	Change in discounted amount	Balance at 31 March 2010
	£'000	£'000	£'000	£'000	£'000	£'000	Current £'000
Early departure costs	408	744	0	(154)	235	8	833
Severance/relocation Facilities	1,679	1,367	50	(1,017)	(250)	0	150
Contract provisions/ losses	615	2,192	539	(338)	0	0	2,393
Legal and other claims	393	335	1,454	(120)	0	0	1,669
Compliance	135	284	302	(26)	15	0	575
	0	0	169	0	0	0	169
Total	3,230	4,922	2,514	(1,655)	0	8	5,789

Analysis of expected timings of discounted flows

	Remainder to 2011	Between 2011 and 2016	Between 2017 and 2020
	£'000	£'000	£'000
Early departure costs	375	344	114
Severance/relocation Facilities	150	0	0
Contract provisions/losses	287	332	1,774
Legal and other claims	1,250	419	0
Compliance	391	184	0
	69	100	0
Total	2,522	1,379	1,888

15.1 Early departure costs

The provision relates to early-retirement and pension commitments, to provide for the cost of future pension payments to staff who have retired before their 60th birthday. The timing and amounts payable are reviewed annually by the Pay and Pension Agency.

15.2 Severance/relocation

This relates to business change and relocation costs.

15.3 Facilities

This relates to existing leases on properties that include terms that require Cefas to make good the respective sites into the state in which the leases were entered into. The provision is based on estimates as to the potential cost of making good the premises at the end of the lease.

Further amounts are also provided to decommission the Lowestoft site prior to relocation. The planned vacation of the Lowestoft site is June 2017.

15.4 Contract provisions/losses

This relates to provisions for losses that are reasonably likely to be incurred in respect of ongoing contracts. The provision is based on an assessment of the cost of the effort required to make good the delivery in excess of any benefit due under the terms of the contract to Cefas.

15.5 Legal and other claims

This represents legal claims reasonably likely to be incurred against Cefas and the expected liabilities arising, the timing and outcome of which are uncertain. The amount provided reflects an estimate of the potential settlements that Cefas may incur, including costs of defending the case.

15.6 Compliance

This reflects project costs to remedy specific Cefas compliance issues.

No reimbursement is expected in relation to any of the amounts provided for.

NOTES TO THE ACCOUNTS

NOTE 16. CAPITAL COMMITMENTS

Contracted capital commitments at 31 March 2010 not otherwise included in these accounts.

	2009–10 £'000	2008–09 £'000
Property, plant and equipment	234	171

NOTE 17. COMMITMENTS UNDER LEASES

Rentals under operating leases are charged to the income and expenditure account on a straight-line basis over the terms of the lease.

17.1 Operating leases

Total future minimum lease payments under operating leases are given in the table below for the following periods:

2009–10

	Vehicles £'000	Land £'000	IT equipment £'000
Obligations under operating leases			
Not later than one year	94	62	0
Later than one year and not later than five years	194	126	0
Later than five years	0	9	0
Total	288	197	0

2008–09

	Vehicles £'000	Land £'000	IT equipment £'000
Obligations under operating leases			
Not later than one year	56	109	0
Later than one year and not later than five years	33	349	0
Later than five years	0	104	0
Total	89	562	0

17.2 Finance leases and other financial commitments

Cefas does not hold any finance leases. Cefas has other financial commitments of £2,423,000 payable during 2010–11, relating to a contract which expires in more than five years for facilities management provided at buildings that are either owned or leased by Defra, or specialised properties held on the agency's Statement of Financial Position.

NOTE 18. CONTINGENT LIABILITIES

Management consider specific risks exist relating to potential claims. The range of these contingent liabilities is currently believed to be between no claim and £100,000.

NOTE 19. RELATED-PARTY TRANSACTIONS

Cefas is an executive agency of Defra and is sponsored by it. Defra is regarded as a related party. Cefas has dealings with Defra and its sponsored bodies. One of Cefas' non-executive directors is employed by Defra.

During the year, Cefas has had significant transactions with Defra and a number of its agencies and NDPBs, including the Veterinary Laboratories Agency, the Food and Environment Research Agency, Animal Health, the Veterinary Medicines Directorate and the Marine Fisheries Agency (MFA). These transactions include the provision of two staff to the MFA as interim board members, for which Cefas charged £323,000.

Turnover of £39,976,000 was derived from core Defra (2008–09: £38,251,000) and £NIL costs were payable to core Defra (2008–09: £NIL). At 31 March 2010, £3,131,000 was due from core Defra (2008–09: £1,248,000) and £NIL was owed to core Defra (2008–09: £NIL).

Cefas has transacted with various other central government bodies. Most of these transactions have been with the Food Standards Agency, the Environment Agency and local authorities.

Board members, key managerial staff or other related parties that have undertaken any material transactions with Cefas, Cefas Technology Limited (CTL) or other related parties during the year other than reimbursement for travel and subsistence in the normal course of business are detailed below:

- ▶ Non-executive director Andrew Field worked for Tribal Group plc as Chief Operating Officer throughout the year. Transactions between Cefas and Tribal Group totalled £12,000 for the year and Andrew Field took no part in relation to this work for Cefas or Tribal Group.
- ▶ Non-executive director Joe Horwood was appointed a non-executive director for Natural England in October 2009. This role receives no remuneration while Joe Horwood is employed by Cefas.

CTL is a fixed-asset investment (see Note 10). The shares are held by Richard Judge as nominee of the trustees for Cefas. Turnover of £178,000 was derived from CTL (2008–09: £249,998) and costs of £59,000 were payable to CTL (2008–09: £148,701). At 31 March 2010 £9,000 was due from CTL (2008–09: £110,749) and £54,000 was owed to CTL (2008–09: £49,266).

NOTE 20. EVENTS AFTER THE REPORTING DATE

There are no events after the reporting date other than those detailed on p 37.

NOTE 21. LOSSES AND SPECIAL PAYMENTS

Losses statement

Charges falling under the “constructive losses” definition were incurred during the year on the dissolved Waveney Campus project to provide new facilities for Lowestoft. This project had been running for more than three years and costs incurred in design, procurement, project management, and legal and financial advice were predominantly provided through a project partner, with contractual obligation for Cefas to reimburse its share should the project be dissolved. The costs expensed in this year in regard to closing the whole project were in the region of £2.5 million.

2009–10	2008–09
£'000	£'000
2,505	0

Special payments

There were no special payments totalling more than £250,000 in the year.

NOTE 22. MAJOR FReM CHANGES FOR 2010–11

Cefas has reviewed the major FReM changes for 2010–11 and determined the following will have no significant impact on the financial statements:

- ▶ Chapter 8 Impairments

Cefas has identified the following accounting change as significant:

- ▶ Chapter 11 Income and Expenditure. The removal of cost of capital charging from the accounts. From 1 April 2010 notional costs should not be recorded for cost of capital. Cost of capital charging will be excluded from the Cefas accounts. The initial application will decrease expenditure by approximately £1.6 million; however, as current accounting treatment reverses the cost of capital in the Net Expenditure Account there will be no net impact overall.

ABBREVIATIONS

ARC	Audit and Risk Committee
Cefas	Centre for Environment, Fisheries & Aquaculture Science
CETV	cash equivalent transfer value
CFP	Common Fisheries Policy
CIP	construction in progress
CMB	Cefas Management Board
CSP	civil service pension
CTL	Cefas Technology Ltd
Defra	Department for Environment, Food and Rural Affairs
DSO	divisional strategic objective
EAFP	European Association of Fish Pathologists
EC	European Commission
ECJ	European Court of Justice
EMECO	European Marine Ecosystem Observatory
FHI	Fish Health Inspectorate
FReM	<i>Financial Reporting Manual</i>
FSA	Food Standards Agency
FSP	Fisheries Science Partnership
GAAP	generally accepted accounting principles
GES	Good Environmental Status
GIS	geographical information system
H&S	health and safety
HR	human resources
HSE	Health and Safety Executive
IAS	International Accounting Standard
ICES	International Council for the Exploration of the Sea
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
ISO	International Organisation for Standardisation
JNCC	Joint Nature Conservation Committee
MCCIP	Marine Climate Change Impact Partnership
MFA	Marine Fisheries Agency
MMO	Marine Management Organisation
MSFD	Marine Strategy Framework Directive
NDPB	Non-departmental Public Body
NERC	Natural Environment Research Council
OGC	Office of Government Commerce
OIE	World Organisation for Animal Health
OSPAR	Oslo and Paris Commission for the Protection of the Marine Environment of the North-East Atlantic
PAC	Public Accounts Committee
PCSPS	Principal Civil Service Pension Scheme
PRP	performance-related pay
R&D	research and development
SMT	senior management team
UEA	University of East Anglia
UKCIP	UK Climate Impacts Programme
UKMMAS	UK Marine Monitoring and Assessment Strategy



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