

Health and Safety Executive Board Paper			HSE/07/39
Meeting Date:	6 March 2007	FOI Status:	Partially open
Type of Paper:	Above the line	Paper File Ref:	
Exemptions:	Appendix 2 closed		

HEALTH AND SAFETY EXECUTIVE

The HSE Board

Making Best Use of Science (MBUS): Progress Report

A Paper by John Hampton

Advisor(s): Justin McCracken and MBUS Project Board

Cleared by Justin McCracken on 26 February 2007

Issue

- 1 To update the HSE Board on progress with the project to implement the recommendations arising from the "Making Best Use of Science (MBUS)" workstream of the Fundamental Review 2006

Timing

- 2 On-going. During the course of the project, many improvements have been developed and introduced. This process will continue over the coming months.

Recommendation

- 3 The HSE Board is asked:
 - a. To note the progress of the project, the key risks and how we are dealing with them
 - b. To agree the revised timescale for developing proposals for organisational and management arrangements for S&T staff
 - c. To agree that they have a key role as champions of MBUS and seek involvement in communicating the benefits of the work to their staff
 - d. To agree that MBUS project should address the issue of budget delegation/financial management of S&T
 - e. To agree that the science plans for 2008 -2011 should cover both commissioned and corporate S&T but not S&T embedded for that period with operational delivery functions
 - f. To note that the MBUS project will deal with relevant recommendations from the OSI Review of Science in HSE

Background

- 4 The Fundamental Review 2006 looked at how HSE might make improvements in its main business areas. Science is a key area with S&T staff comprising up to 30% of all HSE/L's people. The MBUS team identified a number of ways in which we could improve the way we use our S&T resources. The Team was informed by the emerging findings of the OSI Review of Science in HSE, many of which are closely linked to MBUS. In October 2006 the MBUS Implementation Project was set up to take forward the recommendations arising from the workstream. The main aims of the project are to ensure that:
 - a. HSE's S&T capability is focused on identifying and delivering HSC/E's current and future business priorities,
 - b. The S&T community has the flexibility to adapt to changing business needs,
 - c. S&T staff have straightforward and effective management arrangements which provide strong professional leadership and good career management and opportunities
- 5 The MBUS Project Board established a number of workstreams to take the recommendations forward. These are S&T Planning, Governance and Financial Management, Organisational Delivery and Communications and set out its vision for the project (see Appendix 1)

Project Management/Project Risks

- 6 We are managing MBUS in accordance with the principles of "The Rough Guide to Change" and take advice on this from the change management team in Business Services Division. It is a complex project with demanding timescales and dealing with sensitive issues of importance to our staff. The MBUS Project Board has developed a High Level Risk Register as a tool to monitor and manage potential threats to the project's success (see Appendix 2). Developing and maintaining effective communication with staff will be a major issue for the project and the HSE Board has an important role, demonstrating their commitment to MBUS by acting as champions for the project.

Argument

- 7 This section updates the HSE Board on progress within each of the main project workstreams:
 - a) Planning
- 8 Science plans for 07/08 were outside the scope of the MBUS project but we used the ad-hoc process for that exercise as a pilot for our future planning process. The new process is at an advanced stage of development, scheduled for sign-off by the MBUS Project Board in March.

- 9 We envisage that the 08/11 science plans will cover both commissioned and corporate S&T but not S&T resources which, by agreement, have been embedded with operational delivery functions for that period. At this stage it is considered impractical to separate the planning process for embedded S&T from the planning process of host Divisions/Directorates. We seek the Board's support for this approach.
- 10 We have invited tenders for external facilitation of the process of developing the content of science plans. This will be piloted in the Fit3 programme with the involvement of HSL so that they can cascade the process to other HSE programmes. The new HSC/E Science Strategy 2008-2011 will be a product of this work.
- b) Governance – high level
- 11 The HSE Board have already considered and supported the proposed Science sub-group of the Board and its Terms of Reference (HSE/06/111). The arrangements have established strong clear roles for the Chief Scientific Adviser and the HSE Board in overseeing science planning.
- c) Governance - procedures
- 12 Proposals for new governance processes for S&T are at an advanced stage of development scheduled for sign-off by the MBUS Project Board by the end of March. Once accepted we will use the framework to develop more detailed procedures for commissioning, managing, evaluating research. Proposals for reactive support have already been developed and approved by the Operational Management Team at its meeting in September 2006 (see Appendix 3).
- d) Governance - HSE/HSL Partnership
- 13 We have delivered most of the products from this workstream. The high level principles on which the HSE/HSL Partnership will be based are set out in Appendix 4. A new framework document has been drawn up and is awaiting final approval before implementation in April 07. Patrick McDonald will shortly be writing to HSE Board members about the processes for placing blocks of work with HSL in 07/08.
- e) Financial Management Arrangements
- 14 The HSE Board has previously discussed financial management of science but no formal decision was made. This paper now asks the HSE Board to agree that they would like the MBUS project to take this issue forward. If agreed, a working group for MBUS will set out proposals for consideration and approval by the HSE Board at its meeting in July.
- f) Organisational Delivery
- 15 The Organisational Delivery workstream is the most complex and sensitive issue. The Fundamental Review (MBUS) Team envisaged a decision on organisational/management options by April 07 but in order to deal properly with the risks of failing to engage with key staff (Directors, line managers and S&T staff) the MBUS Project Board proposes a revision of the timetable for

delivering this work. We will present the business case for any changes to the HSE Board at the Meeting in July for implementation by October 07. Updates will be provided on progress as appropriate. We seek the Board's agreement to this revision.

- 16 A working group representing the main providers and users of S&T resource has been set up to draw up, refine and evaluate options informed by a high level steer provided by senior S&T stakeholders. The group will meet several times during March and April to deliver this work.

g) Communications

- 17 We have developed a short-term Communications Plan for the planning and implementation stages of the MBUS Project. Implementation of the plan is underway. Staff have seen the project's vision statement and an update on progress is imminent. An Intranet web site and an S&T community discussion board have been set up. Face to face communication is an essential element of the plan and the Chief Scientific Advisor is visiting 10 offices in March/April to engage staff on S&T matters including MBUS. We have prepared briefings to help line managers become involved in cascading the key MBUS messages and, The HSE Board will have a key role in this process through their communications with staff by championing the principles and business benefits of MBUS and creating the right environment for change.
- 18 A further MBUS roadshow will be rolled out in July following the HSE Board meeting to explain to staff any changes and how they will be implemented.
- 19 In December, the HSE Board asked that the longer term communication plan should cover all aspects of S&T. Work on this will start soon

Consultation

- 20 The MBUS Project Board comprises representatives from across the S&T community and its main customers. The MBUS Project Board is: J McCracken (Chair), Patrick McDonald (Chief Scientific Advisor), Eddie Morland (HSL), Jane Willis (Policy), Andy Hall (NSD), Brian Fullam (HID), Peter Baker (FOD), Mike Lacaille (RPD) and John Hampton (Project Manager).

Costs and Benefits

- 21 Details of the costs and quantification of the benefits are being worked up in collaboration with PEFD and BEU (Business Services Division). The external facilitation of developing the content of science plans will cost a maximum of £40k

Financial/Resource Implications for HSE

- 22 The most significant costs will arise from any organisational changes arising from the Organisational Delivery workstream. The working group will work up

a business case for the preferred option(s) for consideration by the Board in July.

MAKING BEST USE OF SCIENCE (MBUS)

The Fundamental Review of 2006 looked at how HSE might make improvements in its main business areas. Science is one of those key areas. The Scientific community is both a large, (20% of HSE's people), and valuable resource and we have a good reputation for producing high quality science and technology (S&T) and using it to deliver our business. However, we know we could use our S&T resources better and the 'Making Best Use of Science' Team have identified ways in which we could do this. Saying that:

- S&T needs to be an integral part of HSE's business model;
- it is not easy to move S&T resources around to meet changing priorities;
- specialist staff are not sufficiently involved in some key business areas;
- current management arrangements for scientific staff are often too complex; and
- we need to make better use of HSL as an equal partner in planning and delivering S&T.

We want to build on our sound base to improve our use of S&T whilst simplifying and streamlining the way it is delivered. And, we want to involve scientific staff in the process of improving. Most importantly, we want to end the uncertainty that you may feel about the future of science in HSE.

THE PROJECT

The team, led by John Hampton, reports to a Programme Board (comprising representatives from across the organisation), chaired by Justin McCracken.

What's in scope?

In the MBUS project we are using a broad definition of science covering the whole range of disciplines that contribute to HSE's business (including engineers, social scientists, economists etc).

OUR VISION

The main aims of the 'Making Best Use of Science project' are to ensure that:

- HSE's Science & Technology capability is focused on identifying and delivering HSC/E's current and future business priorities;
- we have the flexibility to adapt to changing business needs (both internal needs and external ones driven by our work with other stakeholders and in the wider health and safety context); and
- S&T staff have straightforward and effective management arrangements which provide strong professional leadership and good career management and opportunities

HOW WILL WE KNOW WE HAVE BEEN SUCCESSFUL?

Planning

- ✓ S&T will be at the heart of our business model, including strategic planning, with resources aligned with agreed business needs

Governance and financial management

- ✓ Improved management of the commissioning, procurement and deployment of S&T resources, at both programme and project level; including an appropriate challenge function ensuring the quality and value-for-money of S&T spend.

Organisation/culture

- ✓ Structures will be simpler and organisational barriers removed
- ✓ HSL will be involved earlier and more effectively in HSE's decision making on HSE's S&T needs and how resources are deployed

Delivery

- ✓ S&T will be delivered effectively and efficiently at the point it is needed and in a way that ensures quality and value-for-money.

Professional management

- ✓ The S&T community will have strong professional leadership with the Chief Scientist and science coordinators having authoritative roles
- ✓ Career paths are clearly defined and incorporate actively managed development opportunities for S&T staff

Communication

- ✓ People across HSE/HSL are involved in the development and implementation of the various programmes of work and are kept informed of progress

What happens next?

We are currently working on a detailed plan that will identify key milestones and activities, which we will share with you once it has been finalised. We will be developing options during January 2007 and will have a clear picture of where we are going and how we will get there by February 2007. We intend to implement as many of the changes as is practicable by April 2007.

Justin McCracken
McDonald
Chair of the MBUS Project Board

Patrick
Chief Scientist

**Appendix 3 – Proposals for Improving Reactive Support
(from OMT 57/4)**

Open Government status: Fully open	Paper Number: 57/4
	Meeting Date: 25 September 2006
	Type of Paper: Above the line
Intranet embargo?: None	Paper File Reference:

HEALTH AND SAFETY EXECUTIVE

The Operations Management Forum

Commissioning and Managing Reactive S&T support

A Paper by John Hampton

Advisor(s): Sandra Caldwell

Cleared by Sandra Caldwell on 11 September 2006

Issue

1. To update the OMT on progress with the project to improve the efficiency and effectiveness of our arrangements for commissioning and managing reactive support

Timing

2. On-going. During the course of the project, many improvements have been developed, piloted and introduced. This process will continue over the coming months, even after the project itself has formally closed.

Recommendation

3. OMT is asked:
 - To note the key weaknesses identified in the old arrangements for managing reactive support and the solutions which have been or are being developed to address them
 - To note the contents of the draft Mandatory Activities Science Plan and to endorse the approach we have taken to develop it
 - To promote active management of reactive support (S&T) by Band 1s and other managers in their Divisions/Directorates using the performance information we will provide as a basis for discussions
 - To ensure that sufficient administrative support is provided centrally and/or locally to maintain the information system we need to monitor and manage our spend on reactive support S&T

Background

4. This project was one of five initiated to improve the efficiency and effectiveness of HSE's arrangements for commissioning and managing S&T. The main aim of the reactive support project was to ensure that:
 - Reactive support focuses on the right issues in the right way and that only work that is necessary is done
 - Resources used in commissioning, managing, delivering and evaluating reactive support, including administration costs; are proportionate and appropriate
 - Results of reactive support are used effectively

Information from the major stakeholders in the reactive support system showed that whilst the quality of the S&T is valued there were several key areas where improvements were needed. These issues were brigaded into workstreams and then progressed by a working group comprising staff from FOD, HSL, CoSAS and HID.

Argument

This section of the paper summarises the key issues identified by the stakeholders, the measures we are introducing to tackle them and the major threats and constraints which could still impact on the success of the project. Much fuller details will be in the final project report.

5. Issues and solutions

a) Improving the quality of management information about reactive support

The lack of good quality management information is a major barrier to good management of reactive support. Work commissioned before 2006 does not appear on the new PROMIS database. HSL's own support database contained poor quality information on the older projects. The information currently provided to managers on a monthly basis contains only very limited information about the projects which have been active in the most recent month. Projects which are dormant or have stalled are not included in the list, making proactive management difficult. There is often no obvious link between the work and the incident/inspection that gave rise to it.

To deal with this we have:

- Purged existing reactive support databases
- Specified our information requirements of the IT system we introduce/adopt in the coming months
- Developed standard monthly reports to provide managers with useful, good quality information
- Set standards for data quality and developed job guides for monitoring it

b) Better commissioning and management of individual jobs - better scrutiny and challenge of jobs and portfolios of work

Many of the jobs on HSL's reactive support database have no clearly agreed deliverable, end-date or indicative budget. Reactive work and planned work are often lumped together under the same job number. Of the jobs that do have specified timescales and budgets, many of them have passed the deadlines or exceeded the indicative budgets – sometimes by considerable periods or amounts. The instructions and guidelines for commissioning support are out of date. Good practice does exist but it has not been shared or applied consistently. The lack of good quality information, the absence of guidance and procedures together with poorly-defined responsibilities and accountabilities mean that there has been very little scrutiny of or challenge to Mandatory Activities S&T. In this environment it is distinctly possible that unnecessary or lower priority work has been carried out unchecked and unchallenged.

To deal with this we have:

- Clarified the definitions of reactive support/research
- Clarified roles/responsibilities for reactive support in HSE/HSL
- Developed new procedures and updated existing procedures for commissioning and managing reactive support including good practice guidelines (will be Intranet based in due course)
- Introduced a simplified job numbering system

- Good practice guidelines for handling complex jobs
- Good practice guidelines for estimating the cost of jobs
- Developed performance standards for reactive support and for following the procedures
- Involved stakeholders in the development of this framework

c) Evaluation and use of the products of reactive support

Before Jan 2006 there was no evaluation of the quality, timeliness and value for money of reactive support. There was no formal method of capturing and sharing the knowledge gained from incident investigations. The introduction of the PROMIS database has given us an opportunity to put this right but in the early days people have not been using the evaluation functions.

To deal with this we will:

- Monitor use of evaluation and provide feedback to managers (Band 1s)
- Produce periodic reports on the impact of reactive support (requiring input from managers)

d) Improving the quality of information for senior managers and decision makers

To date there have been no formal reports produced on how we plan or spend the Mandatory Activities budget and what we have achieved through its use. The limited information and reports which have been circulated have often raised more questions than they answer giving rise to concerns about the efficiency and effectiveness of the Mandatory Activities S&T.

To deal with this we have:

- Developed a draft Mandatory Activities Science Plan which we will use to show how the budget is invested on Mandatory Activities. Draft provided at **Annex 1**

6. Risks to the success of the project

a) Failure to secure the full cooperation and involvement of Band 1 managers of specialists and scientists – high risk

No matter how good the new arrangements are they will be of little use if they are not implemented properly. The Band 1 managers of specialists and scientists are the key people who can drive forward the cultural and procedural changes. The Band 1s will need to promote active management of reactive support in their teams; monitoring the performance of their staff and looking for ways to improve the way they deliver or make use of reactive S&T. It is a responsibility they have always had but the lack of good management information has been a barrier to carrying it out. There is a risk that some Band 1 managers may not fully take on this role because of other priorities.

To address this risk:

- we will report on the performance of the various teams against the standards we have developed for reactive support. We need OMT members to promote active management of S&T with their Band 1s and to use the performance information we provide to do this when appropriate.

b) New procedures require more time on management reducing specialists' time available for S&T and other priorities – high risk

Active management of S&T will require people to spend more time on management and stakeholders are concerned that this might reduce the proportion of specialists' time which is devoted to S&T. The PROMIS system, although relatively straightforward, still requires regular use to build up sufficient skills. Most individual specialists would not use the system regularly enough to do this

The tasks required to manage management of reactive support are mainly administrative, building on the work that administrative staff already do to support specialists. Focusing the work on administrative staff would enable them to build up the skills needed to use PROMIS effectively.

The work could be done centrally from FOD HQ by one person (B5) or locally through the specialist administrative support teams (about 2 days work per month for each Division). The local option is preferable because easy access to the local specialists/B1 will be the most crucial factor in making the system work.

To address this risk:

- we propose that the administrative staff should carry out most of the management of the reactive support information system liaising with specialists/Band 1s to raise issues which really need B1/specialists' input. Job guides have been developed.

c) IT system not able to provide and maintain the information needed by managers – medium risk

HSE is reviewing the provision of IT support for commissioned S&T. There are three options:

- Option 1 - using existing systems
- Option 2 - adapting PROMIS and a small supplementary database
- Option 3 - buying and configuring an off-the-shelf package (UPSIDE)

The final decision on which option to take has not been made (at the time of writing this paper) but Option 2 is the most likely choice

Each of the options is capable of providing the information we need but maintaining the quality of data would be much harder for Option 1 than Option 2 which in turn would be harder than Option 3.

To address this risk:

- We have developed simple data quality standards which are part of the administrative job guides developed for 6.b above

d) Breaking cultural barriers

In many cases there is poor communication between operational inspectors, specialist inspectors and scientists about the progress or direction of investigations, which can mean that the S&T provided is not fit for purpose or even that outcome of an investigation is compromised or delayed. We need to improve the awareness and performance and crucially the teamwork of:

- Operational inspectors as the end-customers for the S&T,
- Specialist inspectors as the co-ordinator/intelligent customers for S&T
- Scientists as partners in HSE's priorities and as providers of fit for purpose and timely work, and
- Band 1 managers of all three groups above as these are the key people who can make the improvements happen

When S&T input is part of an investigation it is vital that the people involved keep each other involved with developments. Deliverables, deadlines and costs should be agreed and then modified as necessary as the work progresses.

To address this risk:

- We have worked closely with the STEP team to ensure that the arrangements for reactive support are compatible with their work to improve the efficiency and effectiveness of investigations. Again we need OMT members to promote active management of reactive support in their teams;

Consultation and Presentation

7. Representatives of managers and staff in FOD, HSL, HID, CoSAS, FIT3/OURS/MH and Sectors have been consulted during the development of this project and plans are in hand to brief staff on the outcome. Further consultation will be carried out before the products of the project are put on the Intranet.

Costs and Benefits

8. HSE spends over £13 million each year on Mandatory Activities S&T and in current tight financial climate it is vital to ensure that we are making efficient and effective use of this money. It is important that we maintain the balance between the quick, flexible access to HSL's expertise and effective management and control of expenditure. Until now we have erred on the side of flexibility and we have not had a very clear picture of how the money is used and what impact the S&T has had.

The Science Plan has established a baseline for Mandatory Activities S&T expenditure and this has already shown areas which might yield efficiency benefits. For example:

- small jobs requiring less than one day's effort
- provision of equipment to operational staff
- money spent purely to maintain HSL's competence/capability

Closer scrutiny and improved cost estimates for reactive work will help reduce spending on unnecessary work and work with little impact. The purge of the support database has already removed many stalled jobs from the system.

Financial/Resource Implications for HSE

9. The only additional resource requirements arising from the reactive support project is the need for administrative support to monitor and manage the information which is at the heart of the new arrangements. We estimate that each operational Division will need to provide 2 x B5 days per month if this is provided locally or 1 x B5 (full-time) if the resource is provided centrally.

Using administrative staff will ensure that specialist/B1 time will not be deflected from other S&T priorities

Other Implications

10. N/A

Action

11. OMT are asked to agree the recommendations set out in paragraph 3

Contact

12. John Hampton FOD STEP - VPN 522 6128

Appendix 4 - HSE/HSL Partnership

Principles on which the Partnership will be built and managed

Introduction

1 HSE needs to commission good science and to have a sound technological underpinning for its activities. This is fundamental to HSE's role as a risk-based regulator. HSL, as an in-house agency of HSE, has expertise in a wide range of areas central to HSE's work and can deploy multi-disciplinary expert teams at short notice on a 24/7 basis. It is thus indispensable to HSE. As an agency, HSL can also operate in the wider market, build its capabilities and test its competitiveness.

The Principles

2 HSE recognises HSL as its prime supplier of science¹. It is in both HSE's and HSL's interests to ensure that:

- The HSE/HSL partnership supports achievement of HSC's Strategy;
- HSE and HSL will work jointly to ensure appropriate specification of work packages so that desired outcomes can be achieved, and their joint reputations for sound science are protected;
- HSL's capabilities are matched to HSE's needs;
- HSL's capacity is used to the full;
- HSL is able to build a viable business providing high-quality, value-for-money science to both HSE and external customers;
- HSL should exploit Intellectual Property in accordance with a concordat agreed between HSE and HSL;
- Management overheads are reduced, while planning, performance and risk management are simplified and strengthened; and
- The HSE/HSL partnership complies with HM Treasury and Cabinet Office Guidance (e.g. by exemplifying public sector best practice in managing resources).

Working Arrangements – some fundamentals

3 HSE will enter into a limited number of agreements (contracts) to deliver packages of outputs to advance certain areas of HSE's business (as set out in HSE's Corporate Plans) and to enable HSL to invest in research and other activities to provide and maintain key facilities and capabilities.

4 These agreements will set out what is to be delivered in some detail over a one-year horizon but with a view also of likely needs over a further two years (at least). We will not, however, seek to specify in detail at the outset what every strand of work will deliver and when. The value of the work will be specified and profiled at the package level initially, allowing flexibility on the actual content and timing (to be agreed nearer the point of delivery, between HSL and the nominated HSE 'client'). There must, however, be a brief

¹ DTI/OSI definition - The term "Science" includes all public and private activities of a scientific and technological nature, including mathematics, engineering and the social sciences.

and clear record of the scope, duration, cost and product from any piece of work before it is undertaken between HSL and the nominated HSE 'client' (except in those cases, e.g. incidents, where HSL's capacity needs to be brought quickly to bear when this should be achieved as soon as is reasonably practicable). We will aim to ensure that the quantum and quality of work done, in the round, on each package is in accordance with the plan agreed before the start of the year and that this will enable payment streams to be cleared in accordance with the profile.

5 The agreements will include how HSE and HSL will seek to measure the quality and impact of work done and how business risks to delivery will be identified and managed.

6 Agreements will be reviewed and refreshed annually.

7 The partnership will be reviewed after 5 years.

8 HSE's Board Science sub-group (to come into being during 2007 and to include as members the HSE Chief Scientist and the Chief Executive of HSL) will

- provide an oversight of the delivery of HSE's science including from HSL; and
- commission a review of the partnership after every 5 years of operation.

9 Adjustments to the accepted package of agreements can be made in-year by mutual consent of HSE's Chief Scientist and HSL's Chief Executive - and in circumstances agreed by them by designated SCS managers.

10 These principles and working arrangements will be endorsed and owned by the HSL Partnership Board and captured in HSL's Agency Framework Document.