



DEPARTMENT FOR CULTURE, MEDIA AND SPORT

Government Response to the Science and
Technology Select Committee Report on Human
Enhancement Technologies

Session 2006-07

*Presented to Parliament by
the Secretary of State for Culture, Media and Sport
by Command of Her Majesty
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Government response to the Science and Technology Select Committee Report on Human Enhancement Technologies Session 2006-07

The Science and Technology Select Committee's report on Human Enhancement Technologies comes at a time when there are significant developments taking place to strengthen the international community's fight against doping in sport.

First, the World Anti-Doping Agency (WADA) is in the process of conducting an international consultation on the World Anti-Doping Code (the "Code"), which is widely recognised as the single greatest step in the international fight to eradicate doping through the harmonisation of anti-doping rules across all countries and all sports. The Department and UK Sport are playing an active role in this review, which will culminate in the World Conference on Doping in Sport in Madrid in November.

Second, the UK has recently ratified the UNESCO Convention, the first legally binding international framework setting out the responsibilities of Governments in fighting doping in sport. This Convention came into force on 1 February this year, and officials from the Department have been working with colleagues across Government to look at what more can be done to meet our responsibilities.

In addition, London will host the 2012 Olympic and Paralympic Games, the world's greatest sporting festival. Making sure that the Games are drug free is vital to the integrity of the Olympic and Paralympic movements, and to all the athletes who will come to London to compete.

The Committee's report is therefore a contribution to the Government's efforts to stay as close to the cheats as possible. While the Government does not accept all of the Committee's recommendations, particularly where there is a lack of supporting evidence, in a limited way the report will help the Government and UK Sport engage more effectively in the international community's efforts to fight doping in sport, and strengthen our already very successful national anti-doping programme.

1. We believe that ethics are an important consideration in the fight against doping and are concerned that limited attempts are being made to address this issue. We recommend that UK Sport establish a Committee to examine the ethical aspects of doping in sport and advise WADA on possible changes to the consideration of ethical issues within its operations. We also believe that UK Sport and WADA should consider the case for funding research into the ethics of doping. (Paragraph 46)

Government Response

The Committee's view that ethics are an important consideration accords with the view of Government and UK Sport, the UK's National Anti-Doping Organisation (NADO), both with regard to anti-doping and more widely across sport.

Government and UK Sport take the issue of ethically fair and drug-free sport very seriously, demonstrated by the fact that one of UK Sport's strategic priorities is 'World Class Standards'. Under this priority, UK Sport aims to promote the highest standards of sporting conduct and fair play, both on and off the field.

To illustrate, last year UK Sport decided to establish a Science Research Steering Group (RSG) and a Social and Ethics RSG. The latter would aim to enhance our understanding of the attitudes and values that influence and determine the behaviour of elite and development level athletes, athlete support personnel and sporting officials in regards to doping in sport. Outcomes from these will assist with the development of the UK's anti-doping programme and policies, and will contribute to more effective doping prevention strategies.

From 2001 to 04 UK Sport implemented its Sporting Conduct Initiative which was primarily concerned with developing a shared view of the kind of behaviour that is acceptable and unacceptable in different sports, and with building a consensus about how, in terms of conduct, these sports ought to be officiated, played, administered, coached and managed.

Following on from this work, UK Sport's 100% ME Education programme was established in 2005, not only to promote the rules and regulations of anti-doping, but to communicate the broader philosophy of personal responsibility, values, choice and fairness in sport.

UK Sport's major anti-doping survey in 2005 set useful benchmarks for better understanding the attitudes and values athletes possess in regards to doping in sport. To complement this research on elite level athletes, and in order to foster a generation of sportsmen and women who believe they can succeed in sport without the use of prohibited substances and methods, in 2006 UK Sport embarked on a six year programme of social science research with the aim of identifying when and why the attitudes and values of talented athletes between the ages of 12 and 21 may alter in regards to anti-doping as they move through UK Sport's World Class Pathway Programme.

Through this research UK Sport has begun tracking the experiences of talented athletes, and results of the 2006 questionnaire will be available in the summer of 2007. This will be followed by qualitative interviews with 100 panellists later this year.

Furthermore, UK Sport currently consults UK experts on ethical issues arising from the World Anti-Doping Code. An example of this is UK Sport's consultation on the WADC Prohibited List 2006 and in response to the debate on hypoxic conditions as a prohibited method, where advice was sought from UK scientists and ethicists before submitting a response to WADA, the general principle of which was accepted. UK Sport will continue to liaise with the scientists and ethicists who have extensive experience in high performance sport.

2. We recommend that UK Sport commission research into the real incidence of doping both in general and in particular sports in order that the magnitude of the problem may be understood and the means of tackling it may be better defined. (Paragraph 50)

Government Response

While Government recognises the Committee's reason for this recommendation, it is extremely difficult in practice to gain an accurate measurement of the 'real incidences of doping' through research. Indeed, UK Sport advises that it does not know of any recognised research methodology that has achieved this degree of accuracy.

Socially sensitive issues, such as drug misuse and doping, are often under-reported due to the athlete's unwillingness to provide information about themselves that might reveal unacceptable behaviour, even where responses are anonymous. Response errors are expected in research when using direct interview techniques and questionnaires, which has led UK Sport to work with social researchers to identify effective research methodology aimed at minimising such errors.

In light of this, Government believes that UK Sport's Intelligence testing model and plans to draw on research, as set out in the response to Recommendation 1, is the most effective way to come to an understanding about 'real incidences of doping'.

3. We are concerned at the ease by which banned, and potentially dangerous, substances can be obtained for use by athletes and we recommend that the Government review regulation in this area. (Paragraph 52)

Government Response.

The Government shares the Committee's concerns about access to potentially dangerous substances via the internet. We are particularly concerned about access to prohibited substances that are provided via websites operating outside of the UK's jurisdiction.

Within UK Government's jurisdiction, the legislative and regulatory framework is principally provided by the Medicines Act 1968 and the Misuse of Drugs Act 1971. The purpose of these two statutes is to control the availability of human medicines and drugs that are dangerous or otherwise harmful respectively, including availability via the Internet.

The Medicines Act and supporting regulations set out the legislative controls with relation to medicinal products for human use and provide that it is unlawful for such products to be marketed, manufactured, distributed and sold or supplied in the UK except in accordance with the appropriate licences and exemptions.

Enforcement under the Medicines Act is carried out by the Enforcement and Intelligence Group at the Medicines and Healthcare products Regulatory Agency (MHRA). Its Investigation Officers are authorised by Health Ministers, and this authority confers rights of entry, power to inspect and powers of seizure.

As part of its role, the MHRA Intelligence Unit monitors medicines being offered for sale on the Internet, and has the power to take enforcement action where the website is based in the UK. Furthermore, the Intelligence Unit participates in a network of medicines regulators within the EU and elsewhere, and is able to inform these regulators of sites offering medicines which fall within their, but outside the UK's, jurisdiction.

The Misuse of Drugs Act 1971 establishes a comprehensive range of criminal offences for the unauthorised (and therefore unlawful) possession, possession with intent to supply, offer to supply, supply, import and exportation and production of substances that are controlled under the Act. These offences apply irrespective of the means by which the controlled substances are made available to the user, for example through a face to face transaction, or via the internet.

HM Revenue and Customs (HMRC) is the agency which has responsibility for enforcement of the legislation with regards the importation of controlled substances. HMRC uses intelligence and modern detection techniques to identify packages which may contain prohibited drugs, and, where this is found to be the case, has the powers to seize these substances and prosecute offenders.

The Government is committed to reducing the harm caused by drug misuse throughout the UK. The Home Office is currently leading the Government's review of its 10 year National Drug Strategy, and intends to launch the new strategy at the end of this year. In doing so, Ministers are calling for active engagement across Government and beyond.

Whilst the future Strategy must continue to focus on the most dangerous drugs and the most damaged communities, DCMS intends to make representations that the Strategy takes into account the availability and misuse of drugs in sport.

DCMS believes that, rather than seeking a review of regulations, it is more appropriate that officials continue their work with the MHRA, Home Office and law enforcement agencies to investigate what more can be achieved through augmenting enforcement under the current legislative framework.

Furthermore, legal advisers to DCMS are in the process of evaluating the extent to which substances on the WADA 2007 Prohibited List are subject to UK legislation, in particular the Misuse of Drugs Act 1971. DCMS and the Home Office have agreed to work together to consider the case for control of any substances which currently fall outside of 1971 Act.

Finally, DCMS officials are in contact with the Secretariat to the Advisory Council on the Misuse of Drugs (ACMD) about any future role the Council might have with the issue of doping in sport.

4. We do not believe that it is in the best interest of the athlete for WADA to remove its accreditation from laboratories testing commercial supplements for use in sport. We recommend that the Minister for Sport maintain pressure on WADA to secure the continuing accreditation of laboratories which also test commercial supplements. In addition, we recommend UK Sport take the lead in working with relevant bodies to put in place a certification system for supplements used in sport to regulate against contamination of food supplements and provide assurance to athletes on the purity of what they are taking. (Paragraph 57)

Government Response

The Government fully supports this recommendation, and both DCMS and UK Sport will continue to press WADA on this matter, principally through the Code review process.

UK Sport has consulted widely with key stakeholders to build support in favour of WADA accredited laboratories having the ability to provide supplement testing services for elite sport. UK Sport believes there must be clear distinctions made between urine sample analysis and supplement testing services, but utilising the skills and resources of WADA accredited laboratories should be an available option.

Since 2001, UK Sport has worked to provide athletes with education, information and support relating to supplements and has created a number of resources to assist athletes in making safe and responsible choices about their health and performance. These education resources are underpinned by the supplements position statement produced in 2002 in collaboration with the British Olympic Association (BOA), British Paralympic Association (BPA) and the Home Country Sports Councils. This statement was revised in 2006 following an Open Day for National Governing Bodies.

Furthermore, UK Sport established a supplements working group in 2005, which continues to meet to consider how to provide further support to athletes in this area.

It is worth noting that UK Sport is one of the few National Anti-Doping Organisations that takes a firm stance on this matter and that it will continue to do so to protect the right of all athletes in the UK to make responsible and informed choices about supplements in sport.

5. We recommend that UK Sport consult upon and review its education material aimed at general practitioners and other medics on the issues faced by athletes, providing further education if this is deemed necessary to clarify WADA prohibited substances and the routes via which such substances may be given. (Paragraph 58)

Government Response

Government welcomes this recommendation, and UK Sport will endeavour in the next year to build on the information and education material available to general medical personnel. That said, it should be noted that considerable services and resources are currently available to general medical personnel regarding anti-doping.

UK Sport's Drug Information Database™ (DID) is a global drug information service available online without subscription. The DID provides easily accessible and accurate responses to queries about the status in sport of licensed pharmaceutical and over-the-counter medicinal products available in the UK and Canada, and contains thousands of generic compounds available throughout the world. UK Sport was the first National Anti-Doping Organisation to provide an online drug information service, which is being used globally by athletes, international federations and anti-doping organisations.

In addition, UK Sport provides updates to the British National Formulary, a reputable medical publication which includes information on anti-doping using a copy of UK Sport's advice card of permitted and prohibited substances, Therapeutic Use Exemptions (TUEs) and supplements.

UK Sport annually delivers anti-doping training to all practitioners selected for UK Sport's Fast track Practitioner programme for Sports Science and Sport Medicine practitioners and the Sports Medicine Diploma at Bath University. Through 2007 - 08 it is intended to extend these opportunities to other universities and colleges in the field of sports science, sports medicine and coaching.

6. We urge DCMS and UK Sport to press WADA for clear reasoning to be given for each substance and method included on the Prohibited List and for its decisions in cases where substances and methods are examined but not banned. As a general rule, we should like to see increased attention paid by WADA to the science behind substances and methods considered for inclusion in the List. (Paragraph 63)

Government Response

Government fully agrees with the Committee's concerns at the lack of transparency in how the WADA List Committee reaches its decisions.

This view was communicated to WADA in the UK's second Code review submission dated 30 March. In his foreword to this submission, the Minister for Sport said that "*...it is important that greater clarity is achieved through WADA's publication of the deliberations of the List Committee, showing that resultant decisions are based on sound scientific evidence. Transparency of this process is key for the worldwide credibility of the List.*"

Government and UK Sport will continue to press WADA, when appropriate, on this issue.

7. We are concerned at the approach taken by the Government to the use of recreational drugs in sport where they may be performance-enhancing and against the spirit of sport, and we urge the Government to conduct further research to ascertain the possible performance-enhancing capacity of social drugs in sport. (Paragraph 65)

Government Response

In its previous recommendation, the Committee called for WADA to give greater weight to scientific evidence when considering whether or not a substance or method should be included on the Prohibited List.

This accords with Government's view on all of the substances on the List, whether they are classed as 'recreational' or not. We are entirely clear that where a substance is scientifically proven to enhance performance, it should be included on the List.

The Committee will be aware that for any substance or method to be considered for inclusion on the List, it must meet two of the three criteria set out by WADA. These are: performance enhancing; damaging to the health of the athlete; and against the spirit of sport.

As these criteria are given equal weighting there are substances on the List that could potentially damage the health of the athlete and are viewed to contravene the spirit of sport. However, it is entirely possible that, according to all available science, these substances have no performance enhancing effect whatsoever.

Government's view is that any substance or method on the List should, as a minimum, meet the criteria of performance enhancing and further that, in accordance with the Committee's previous recommendation, this should be scientifically proven. It undermines the credibility of the List where a substance or method's performance enhancing ability is simply a matter of conjecture.

With regards the Committee's assertion that Government should carry out research on the performance enhancing capacity of recreational drugs, we have set out in our response to Recommendations 23 and 24 the reasons for our belief that WADA is the organisation best placed to carry out any such research.

8. We recommend that UK Sport press WADA for abolition of the abbreviated TUE system, and that UK Sport ensure that all TUEs in the UK are awarded on the basis of sufficient evidence that an athlete requires the medication for which the exemption has been awarded. (Paragraph 68)

Government Response

While Government acknowledges the Committee's concerns regarding the perceived flaws with WADA's Abbreviated Therapeutic Use Exemptions (ATUE) system, UK Sport's Therapeutic Use Exemption (TUE) Committee works to the highest standards of integrity in compliance with the International Standard for TUEs, and ensures that a TUE is never approved unless sufficient evidence is provided. In addition, given the potential for abuse of the ATUE system, UK Sport uses the TUE Committee to review any ATUE applications that highlight concerns.

UK Sport has recommended strongly to WADA that it reviews and improves the system for monitoring substances and methods that currently require an ATUE, and it will continue to do so. However, we do not agree that such a system should be abolished as the Therapeutic Use Exemption system is an important mechanism for drug-free athletes to seek permission to legitimately use prohibited substances and methods for a medical condition.

9. We recommend that UK Sport further develop its research programme into the science behind doping and that it apply understanding of the effects and pharmacokinetics of banned substances to its testing programme to help further identify optimum testing time-points for doping in sport. (Paragraph 69)

Government Response

Government believes that it is WADA which is best placed to take the lead on such research. WADA is uniquely placed to co-ordinate research internationally, and to share the outcomes and findings. We do not believe that best return on investment into research can be achieved by countries acting unilaterally. Furthermore, UK Sport's primary role is that of a National Anti-Doping Organisation, not a research institution.

However, in developing its testing programme, UK Sport has identified the need to draw on existing research, and so is in the process of setting up a Research Steering Group to assist in identifying possible areas for collaboration and development as set out in our response to Recommendation 1.

UK Sport has also expressed support for the submission of a research project by the Glasgow consortium headed by Dr Yannis Pitsiladis to investigate genetic, physiologic and environmental factors related to doping, and has been supportive of the work of Southampton University investigating Human Growth Hormone headed by Professor Peter Sonksen and Dr Richard Holt.

10. We recommend that UK Sport work with WADA to help further develop WADA's testing regime and increase the chance of catching athletes who are guilty of doping. (Paragraph 71)

Government Response

Government is proud of the strong relationship UK Sport has formed with WADA, NADOs and other international partners, and the joint work it has undertaken in order to improve the testing programmes of others around the world. UK Sport will continue to do so as its Intelligence testing model develops, and Government welcomes the Committee's endorsement of this model in the report.

To illustrate, in April UK Sport is to host the second WADA Legal Symposium, aimed at better coordinating successful prosecution of athletes found to have contravened the World Anti-Doping Code.

UK Sport will be the first NADO to fully utilise all aspects of WADA online clearing house, the Anti-Doping Administration and Management System (ADAMS), demonstrating a significant commitment to WADA and its endeavours at producing a harmonized approach to testing through the promotion of sharing information between countries and International Federations.

UK Sport was recently invited by WADA to be a member of a working group charged with redrafting the International Standard for Testing. The working group was limited to those organisations which have comprehensive and established Out-of-Competition testing programmes and included USADA, the IAAF (Athletics International Federation) and FIS (Skiing International Federation). UK Sport's current Athlete Whereabouts model was highlighted as an example of best practice, and the new draft currently under review reflects the experience and knowledge of UK Sport staff in developing the national system.

Furthermore, UK Sport has reciprocal testing arrangements with a number of developed NADOs worldwide. UK Sport also uses Association of National Anti-Doping Association's (ANADO) Anti-Doping Services (ADS) to test UK athletes when abroad and similarly undertakes testing on international athletes when in the UK at the request of ANADO-ADS or WADA. Such relationships enhance the capacity to reach those athletes who compete, train or live abroad and who otherwise could fall off the testing 'radar', as well as facilitating the sharing of best practice as called for by the Committee.

Finally, UK Sport recognises the Committee's view that in order for anti-doping efforts to be fully effective, it is fundamental that other countries build the capacity to operate effective systems of detection, deterrence and prevention. In September 2006 UK Sport was asked by WADA to assist in training Doping Control Officers in the Gulf Coast Countries and Yemen Regional Anti-Doping Organisation (RADO). As a consequence, WADA has further requested that UK Sport anti-doping staff train additional Doping Control Officers and tutors in Saudi Arabia in May 2007.

11. Whilst we accept that most testing is satisfactorily carried out through urine, we are of the view that increased research may be needed to determine the most appropriate testing route for different prohibited substances and we urge the Government to consider supporting studies of this nature. In the meantime, we urge UK Sport to increase its programme for testing blood samples since this may facilitate more detailed testing for prohibited substances, either in the present or future. (Paragraph 72)

Government Response

Government welcomes the Committee's acknowledgement that an effective anti-doping programme should incorporate both urine and blood testing, as this endorses the approach being developed by UK Sport.

Urine is still widely considered the most effective and consistent indicator of detecting most substances in an athlete's body. However, recognising the need to keep abreast of current thinking UK Sport invited a number of internationally recognised experts in blood testing to a meeting in November 2006.

Drawing on the conclusions from this meeting UK Sport has increased the emphasis on blood testing for the coming testing year. UK Sport is equipped with the necessary Blood Collection Officers, equipment and documentation to conduct both anti-doping blood testing and blood screening programmes on behalf of International Federations, an example of which was UK Sport's integral involvement in blood screening at the recent 2007 European Indoor Athletics Championship.

12. We recommend that UK Sport and WADA increase storing of data and samples to allow re-evaluation and analysis of test samples once more sophisticated detection methodologies have been developed. (Paragraph 75)

Government Response

Guidance on the storing of samples is a matter specifically for WADA and for its accredited laboratories. The current World Anti-Doping Code International Standard for Laboratories requires laboratories to store samples for a minimum of three months and both WADA accredited laboratories in the UK meet this WADA requirement.

As part of the review of the Code and the International Standards, the proposal to lengthen this time period, and the subsequent practical and financial implications, are being considered.

13. We urge UK Sport to consider the value of implementing a policy in which all UK athletes would be obliged to compete internationally in the 12 months prior to the 2012 Olympics in order to be eligible for participation in the games, with exemption given where appropriate, for example in cases of serious and proven injury. (Paragraph 76)

Government Response

UK Sport is not aware of any scenario where an athlete would compete for Team GB in the Olympic Games without having competed internationally during the preceding year. It is incredibly rare for performers in able bodied sport to appear internationally for the first time at major events, although it is not unheard of in Paralympic sports.

Furthermore, athletes wish to gain as much international experience as possible in the run up to a major event, as well as being required to qualify through competing at international events. Therefore we do not believe that this Recommendation is required.

14. We recommend DCMS evaluate whether the resources allocated to anti-doping within its own department are sufficient, and whether they will be so by 2012.

Government Response

DCMS regularly reviews and evaluates its allocation of resources through its routine business planning cycles, and will continue to do so in the run up to 2012.

There is also a further requirement on the Department to evaluate resource allocations continuously as part of its three year Comprehensive Spending Review agreement with the Treasury.

The Department is currently embarking on a transformation programme in response to the DCMS Capability Review, published on 27 March 2007. This will include consideration of the distribution of resources within the Department.

Finally, through its Funding Agreement with UK Sport, DCMS also reviews and monitors the resources allocated to UK Sport, which is responsible for delivering the UK's anti-doping programme.

15. We recommend that, rather than arrogate to itself a world-wide leading position, UK Sport operate a continuous review process to ensure current and future success of the UK anti-doping programme. This review process should include monitoring whether the rules are understood and applied consistently across all sports in the UK. (Paragraph 80)

Government Response

Government strongly refutes the suggestion that UK Sport has arrogated itself a world leading position. Indeed, during the oral evidence sessions for this inquiry, the Committee heard from a number of witnesses that UK Sport has achieved international recognition as a world leading Anti-Doping Organisation.

Moreover, UK Sport disputes the implication that it does not already have a continuous review process in place. UK Sport is audited and scrutinised regularly and rigorously through the British Standards Institute, from which it has received ISO Certification annually since 1997, Deloitte Touche Tohmatsu (DTT), the recently established Independent Scrutiny Panel, WADA, the Council of Europe and DCMS.

Furthermore, UK Sport's business standard and performance requirement is to ensure that regular internal audits of procedures are undertaken. All feedback is considered and action is taken to ensure a world class programme is maintained and continuously improved.

The UK is a world leader in anti-doping. UK Sport has one of the most creative and effective education programmes, one of the largest testing programmes, will be one of the first NADOs to fully utilise the functionality of ADAMS and has one of the world's most advanced Athlete Whereabouts Programmes.

The competency of UK Sport is reflected by the representation of staff on various International Committees and Working Groups established by WADA, the Council of Europe, the Association of National Anti-Doping Organisations (ANADO) and through representation in formal capacity at major events, including the Olympic and Paralympic Games.

As the UK's NADO, one of UK Sport's key roles is to support and monitor compliance with the World Anti-Doping Code. This has been successfully achieved through the development of the UK Sport Model Rules and the establishment of an NGB Agreement for all sports on the testing programme. Indeed, UK Sport recently appealed successfully against a sanction imposed by a National Governing Body (NGB) which it did not deem compliant.

16. We recommend that UK Sport work with schools to develop an effective mechanism for educating about the harm which doping in sport can cause. (Paragraph 82)

Government Response

Government accepts that the school system is a valuable route through which anti-doping education can be provided, and UK Sport has run a number of initiatives for schools. However, while education for schools is an important aspect of any anti-doping education programme, the main target audience is athletes and their support personnel at a world class development and performance level.

In 2004 UK Sport developed three modules for use in schools covering the following three topics; 'History, Rules and Ethics', 'Rules and Regulations' and 'Drugs and their effects and risks'. These lesson plans and activities are available on the 100% ME website, and were written to support learning within various areas of the National Curriculum.

Through the 100% ME Outreach programme, UK Sport attended ten events in 2006, where around 8,000 school-age athletes were educated about drug-free sport and the value of competing fairly. Furthermore, over the next year the Outreach Programme will be primarily aimed at developing athletes and school-age competitors.

Through the 100% ME Accreditation Programme, UK Sport has delivered a number of workshops to school students and school-age competitors. In 2006 UK Sport began discussions with the British Athletes Commission with the aim of formalising a process whereby 100% ME Ambassadors can deliver drug-free sport workshops. This will be pursued over the next year.

Also in 2006 UK Sport, in partnership with the Youth Sport Trust, began drafting an education resource for use in schools. This resource will be based on the British Athletes Commission's document '6-keys to Success' and will be available for teachers via the 100% ME website.

17. We urge UK Sport and DCMS to liaise formally with ASADA and USADA in order to determine best practice in testing, investigation and prosecution of doping offences. We recommend that a separate body be established to undertake these roles in the UK, independent of UK Sport and the national governing bodies of individual sports. (Paragraph 88)

Government Response

UK Sport and DCMS are already actively involved in a number of International networks which facilitate sharing best practice.

Government is signatory to the International Anti-Doping Arrangement (IADA), which was established with the express aim of learning from the best practices being implemented around the world in precisely the sorts of areas the Committee highlights in its report. The other IADA signatories are Australia, Canada, Denmark, Finland, Netherlands, New Zealand, Norway, South Africa and Sweden.

Additionally, UK Sport is a member of the Association of National Anti-Doping Organisations (ANADO), one of whose objectives is to facilitate the exchange of information, experience and learning between its members. ANADO currently has 45 members, including ASADA and USADA.

UK Sport also attended the WADA Legal Symposium, hosted by USADA in Colorado Springs, in November 2006. The aim of this Symposium was to discuss how sport and governments can best co-operate and co-ordinate activities, notably in the sharing of information. A number of the areas discussed were based around the models being used by ASADA and USADA, who were represented.

UK Sport hosted the next Symposium on 16-17 April, and this was attended by officials from DCMS and HMRC.

The Committee raised the issue of an independent anti-doping agency with the Minister for Sport when he appeared before them on 12 December 2006. At this time the Minister reminded the Committee of the independent reviews carried out on the UK Sport anti-doping function in 2004, which found no evidence to support the assertion of a conflict of interest. He further said that he had full confidence in UK Sport as the UK's NADO, and while he recognised that there was the perception of a conflict in the minds of some individuals, he was not prepared to take action on this until supporting evidence was produced.

Government strongly believes that no such evidence has been provided during the course of this inquiry. Furthermore, the Independent Scrutiny Panel set up in 2005 to consider the question of a conflict of interest at UK Sport, published its first annual report on 15 December 2006. The report did not identify any conflicts of interest.

DCMS and UK Sport do, however, continually review the structure and remit of UK Sport as the UK's National Anti-Doping Organisation, and will continue to do so in the run up to London 2012. This will include continuing to seek to learn lessons from best practice internationally and to look at how best these can be used within the UK.

18. We urge the Government to initiate a review of the experience of countries which have put in place laws criminalising doping in sport. (Paragraph 91)

Government Response

Through our involvement in a range of international anti-doping forums, such as the Council of Europe's Coordination Forum, Government keeps abreast of anti-doping programmes and approaches in other countries. We are aware, for example, of WADA's scheme to publicise international approaches to anti-doping, including the wide-ranging legislation in place.

Additionally, as part of its EU Presidency, Germany has recently conducted a survey to look at the legislation adopted by EU Member States, and is currently considering how to take forward findings from the survey.

We are aware that of those governments which have taken the legislative approach, for a large number the legislation is still in its infancy and lessons are being learned. By way of illustration, the Spanish model has recently attracted criticism from an International Federation because of the delays it has faced in progressing sanctions against athletes, because of obligations imposed under the national legislation.

Government does, however, keep the UK's approach under regular review and remains receptive to learning from differing international approaches.

19. We urge UK Sport to recommend to WADA that a minimum four year ban is applied in all incidences of proven doping. (Paragraph 92)

Government Response

During the consultation process for the 2003 World Anti-Doping Code, there was extensive discussion on the proportionality and effectiveness of a four year sanction for athletes found to have committed an anti-doping rule violation. As the Committee is aware, the debate culminated in a two year sanction for a first offence and then a lifetime ban for a second.

The issue of sanctions has been revisited in the latest draft of the Code, following the first phase of consultation in the Code review. In this latest draft provision has been enhanced to allow for an increase in the first sanction to four years in 'aggravated circumstances' such as the athlete being involved in a wider doping scandal, or possessing multiple prohibited substances.

Government welcomes this amendment to the Code. Indeed, UK Sport has contributed to the current movement towards a four year sanction for aggravated circumstances, while acknowledging that in order for harmonisation to be truly effective, it must be possible for any sanction to be applied consistently across all sports.

20. We urge UK Sport to consider a mechanism by which athletes would be liable for repayment of all financial gains, perhaps from the point of the last ‘clean’ test they had given. (Paragraph 93)

Government Response

Legal advisers have counselled that in any judicial process, proof of an offence can only be established with evidence which determines when the offence was first committed. As several months may exist between a negative test and an anti-doping rule violation, it would not be legally justifiable to attempt to enforce the repayment of financial gain received by an athlete during this period.

Within the current UK Sport Athlete Personal Awards, the terms and conditions make it clear that all financial payments will be suspended on notification of a case to answer of an anti-doping rule violation, pending final determination of the case. The funding awards also stipulate that UK Sport reserves the right to reclaim any of the financial instalments of the award made to the athlete during the period of the breach.

In addition to this, some International Federations make it clear that any financial gain from an event will be returned to the appropriate body and forms part of the sanction imposed on the athlete. UK Sport has no jurisdiction to demand repayment of any financial gain beyond that which is distributed through the World Class Performance Programme. The degree to which such financial gains must be repaid depends entirely on the jurisdiction of the relevant authority and any existing contract that the athlete has with an event organiser.

21. We recommend that UK Sport and sporting bodies consider making it a requirement that athletes should disclose sources of doping before they are allowed to return to competitive sport. (Paragraph 94)

Government Response

While Government acknowledges the intention behind this recommendation, UK Sport has advised that such a requirement would be unenforceable, particularly as many athletes deny knowing how the substance found its way into their system. However, we welcome the improved provisions within the latest draft of the Code which enable an athlete to reduce their sanction if they assist in identifying sources of doping.

22. We urge the Government to clarify the position regarding the jurisdiction of the Court of Arbitration for Sport for arbitration and mediation of disputes in doping cases which may occur prior to and during the London 2012 Olympics and to take any steps necessary to ensure that appropriate jurisdiction is established. (Paragraph 96)

During the period of the Games, jurisdiction over anti-doping at the Games sits with the London Organising Committee for the Olympic Games (LOCOG). LOCOG will establish the appeal process and the sanction process which will be applicable during this time, and will work with the Court of Arbitration for Sport in doing so.

Government was pleased that Matthieu Reeb, the Court of Arbitration for Sport's (CAS) Secretary General, confirmed that CAS already has in place a set of procedural rules which clearly set out its jurisdiction with regards the Olympic Games, and which were used for the Torino Games in 2006.

These rules are laid out in the CAS document 'Arbitration Rules for the Olympic Games' and cover the establishment of an ad-hoc Division of CAS which has jurisdiction to deal with all disputes, including those in doping cases, arising in the ten days prior to the Opening Ceremony and during the Games.

23. We recommend that the Government establish effective means of monitoring and evaluating potential areas of threat from doping prior to the London 2012 Olympics. We recommend that this responsibility be given to the new organisation in charge of testing, investigation and prosecution of doping offences, distinct from UK Sport, as recommended earlier in this Report. (Paragraph 98)

Government Response

Government believes that WADA is best placed to monitor and evaluate potential areas of threat in doping, given WADA's unique position internationally as the key coordinating body in the fight against doping. This position allows WADA access to leading and cutting edge anti-doping research.

For example, since 2001 WADA's Medical and Research Committee (MRC) has funded a total of 117 research projects. This research has been integral to the development of research into future threats.

In 2007 the MRC has invited tenders for, and is funding research in, the five key areas of:

- Compounds and/or methods enhancing oxygen delivery
- Non-steroidal compounds or methods enhancing growth
- Projects relating to the Prohibited List: classic methodologies
- Projects relating to Prohibited List: novel methodologies
- Identification and/or detection of substances with suspected doping potential

This research includes work on the detection of 'novel' and newly emerging doping threats and, by virtue of its global reach, WADA is able to draw from leading international research bodies, including those in the UK.

For example, UK Sport is working closely with researchers at the University of Southampton who are looking at methods for the detection of abuse of Human Growth Hormone. Furthermore, there are two studies into gene doping technologies currently being carried out at Nottingham Trent University and at the Royal Free and University College Medical School.

Government believes that while it is reasonable to expect some horizon scanning to be carried out by UK Sport, as evidenced by the establishment of its Research Steering Groups, it is also right to expect UK Sport to direct its limited resources where these can have best effect. To this end, it is appropriate that UK Sport has direct access to those networks that can carry out horizon scanning on its behalf, both in the UK and abroad, principally through WADA.

However Government does acknowledge the Committee's call for greater cross-government working between HMRC and DCMS in identifying those substances which are being imported into the UK and which may be used to enhance performance illegally.

Indeed, officials from DCMS are working with colleagues in HMRC to establish what information and intelligence can be shared with regards to substances being imported. In addition, HMRC is part of the cross-government Inter Departmental Group which considers departmental planning for the 2012 Games and its legacy.

24. We recommend that DCMS and UK Sport develop a funding stream to support research into potentially prohibited substances and methods for their detection. We recommend that funds be made available for this work well in advance of the London 2012 Olympics. (Paragraph 103)

Government Response

As outlined in the response to Recommendation 23, Government believes that it is WADA which is best placed to take the lead on such research. It is uniquely placed to set the research priorities, invite bids from the best research institutions around the world and, importantly, to make public the results. We do not believe that the best return on investment into research is achieved by countries acting unilaterally.

Furthermore, the Government makes annual contributions to WADA's running costs, of which WADA contributes approximately 20% to funding research.

Since 2002, the UK has contributed US\$3,637,825 to WADA which, at current exchange rates, equates to almost £2 million.

In 2006 WADA (drawing from the contributions from Public Authorities and the Olympic Movement) approved US\$6.3 million for the 2007 research programme. This brings the Agency's total commitment in research funding to more than US\$31 million.

25. We recommend that the UK pilot the development of a doping passport and that government funds be made available for development of this scheme. To support this, we recommend that funding be given for research into normal physiology and changes in physiological characteristics after doping with illegal substances. (Paragraph 105)

Government Response

The type of 'doping passport' scheme the Committee recommends is currently being piloted by a number of sports' International Federations (IFs). UK Sport is watching with interest the development of these programmes, the early lessons being learned and the potential future applications these may have.

Furthermore, UK Sport is continuing to investigate active mechanisms of capturing relevant data from athletes, such as blood profiling and use of the ADAMS database, while acknowledging the impact on athletes and the significant resources required.

However, as has been mentioned in our response to Recommendations 23 and 24, Government believes that WADA should take the lead in co-ordinating anti-doping research such as that suggested by the Committee.

The Committee should be made aware, however, that there are accepted international protocols, namely the World Medical Association Declaration of Helsinki (Ethical Principles for Medical Research Involving Human Subjects) first accepted in 1964, which ensures that the health of humans involved in research is protected and thereby restricts the scope of research to, for example, test doping substances on humans to assess changes to their physiological characteristics. This is supported by the World Anti-Doping Code which states that all research 'shall comply with internationally recognised practices'.

26. We recommend that UK Sport and DCMS urgently consult on requirements for scale-up of testing facilities, personnel and protocol during the London 2012 Olympics and that Government funding for meeting such requirements be made available. This will clearly require close working with LOCOG and to facilitate this, we urge the Government to provide a clear statement on the responsibilities and remit of LOCOG and UK Sport regarding the London 2012 testing programme. (Paragraph 109)

DCMS and UK Sport fully anticipate consulting on the requirements for scaling-up testing facilities, personnel and protocol for the 2012 Games at the appropriate time.

As the Committee is aware, the responsibility for testing during Games-time falls to LOCOG, under delegation from the International Olympic Committee.

In February LOCOG appointed its Chief Medical Officer (CMO) with overall responsibility for the anti-doping programme for the 2012 Games. In light of this appointment, LOCOG has begun work on arrangements for the testing programme, and will continue to do so in close collaboration with DCMS and UK Sport.

Funding for the 2012 anti-doping programme is the responsibility of LOCOG, and as such is already factored into LOCOG's budget.

The remit of LOCOG, and any role for UK Sport, will be developed as these plans progress.

27. We recommend that immediate mechanisms be put in place by UK Sport to learn how other countries have managed doping during large international sporting events. We recommend that the Government liaise actively with WADA, IOC and other governments to ensure that the UK is not only well prepared for anti-doping during the 2012 Games, but that there is a clear understanding of the protocols the UK must have in place. (Paragraph 111)

Government Response

Government has full confidence in the experience and expertise that UK Sport has in the management of anti-doping testing programmes at major events.

To illustrate, UK Sport has first hand experience of managing the entire testing programme for the 2002 Commonwealth Games in Manchester. This included the planning, collection and transportation of 1000 samples over ten days.

In addition to this, staff from UK Sport have been actively involved in 110 major events since 1997. These include first hand involvement in the management of anti-doping with the Athens 2004 and Torino 2006 Organising Committees, and participation in WADA's Independent Observer Programme at the DOHA Asian Games.

As a result of this extensive experience, UK Sport has a clear understanding of the protocols that are required to help deliver a successful Games-time testing programme, and so will work with LOCOG as the organisation with responsibility for this programme.

In order to ensure that UK is well prepared, DCMS and UK Sport shall continue with the existing practice of co-ordinating with the relevant international bodies, including LOCOG as mentioned, in the run up to the 2012 Games.

28. We recommend that the Government develop an action plan in conjunction with UK Sport to ensure that the UK is prepared for anti-doping well in advance of the 2012 Games. (Paragraph 111)

Government Response

Government fully recognises the responsibility placed on the UK in becoming an Olympic and Paralympic Games host. As Dick Pound, WADA Chair, has recently said, host nations have a responsibility to demonstrate their commitment to drug free sport.

We acknowledge the Committee's call for Government and UK Sport to develop an action plan in advance of the 2012 Games. It has always been our intention to do so at the appropriate time, which will be at the beginning of the four year cycle after the Beijing Games.

During Games-time, the anti-doping programme is the responsibility of the International Olympic Committee (IOC) and the International Paralympic Committee (IPC) who will delegate the responsibilities relating to the operation of anti-doping programmes to LOCOG. LOCOG will run the programme in accordance with the requirement of the IOC, IPC and WADA. LOCOG is currently considering how it will operate this programme.

29. We recommend that mechanisms be put in place for informed liaison between UK Sport or any replacement anti-doping authority and HM Revenue and Customs to identify and monitor prohibited substances brought into the UK which may be intended for use during the 2012 Olympic Games. (Paragraph 112)

Government Response

DCMS acknowledges the Committee's call for closer working with HMRC. As set out in our response to Recommendation 23, DCMS and HMRC are working together to establish what information and intelligence can be shared with regards to doping substances. Also, HMRC is part of the cross-government Inter Departmental Group which considers departmental planning for the 2012 Games and its legacy.

Furthermore, LOCOG is currently considering whether there are any further requirements with specific relation to Games-time.

30. We should like to see a culture of 'openness' developed and maintained in which athletes can easily access help and advice in situations where use of legal HETs may be appropriate. UK Sport should take the lead in fostering this approach through its links with the national sporting bodies. (Paragraph 115)

Government Response

Government agrees with the Committee's view regarding the importance of legal Human Enhancement Technologies, and is confident that the culture of 'openness' the Committee calls for in supporting athletes' exploitation of these HETs, already exists.

UK Sport's core values of 'Commitment to Excellence', 'Integrity and Openness', and 'Working Together' support its commitment to 'openness' as recommended by the Committee.

UK Sport's support of athletes goes well beyond financial investment. It is recognised that for athletes to succeed at the highest level, a range of world-class support mechanisms need to be in place around them. With this in mind, UK Sport works closely with partner organisations, specifically national sporting bodies, to ensure that our athletes benefit from the best possible coaching and sports science and medicine support.

Funding is targeted at athletes via their sport's governing body, through the World Class Pathway programmes. Podium and Development level athletes will be surrounded by a performance programme that includes coaching, training and competition support, medical and scientific services and access to the best facilities.

Alongside UK Sport's work with National Governing Bodies and elite athletes through the World Class Pathway, there is also an additional network of partner organisations which complements the work and objectives of UK Sport and forms a vital element of the elite sport community. These other key partners include the British Olympic Association, the British Paralympic Association, the Institute Network and the Home Country Sports Councils.

UK Sport's significant investment in scientific and medical support ensures that we are in regular contact with National Governing Bodies to ensure British athletes have access to the most innovative, legitimate techniques to improve performance.

31. We recommend that the Government review the quality of sports science research in the UK and implement mechanisms for enhancing training and support where required. (Paragraph 118)

Government Response

Government agrees with the Committee's view that sport is big business in the UK, and that this should be underpinned by the highest quality sports science research. We are confident that research undertaken in the UK is of a very high quality, and that the UK has an excellent reputation within the international academic community for the quality of its sports science research.

UK Sport and the English Institute for Sport (EIS) regularly review current research in order to relate its application to sport. This is primarily carried out through literature reviews, attending relevant conferences and reviewing relevant journal articles.

However, the Government acknowledges that there may be limitations to the way in which research is directly applied to sport or meets the needs and priorities within the sports programmes. The Research Councils have confirmed that they carry out sports related research, as set out in more detail below, but that proposals for this research often have to be considered alongside proposals for research into areas which may be accorded higher priority.

Where, in evaluating this current research, UK Sport identifies research requirements which are not being met, it does, through its research and development programme, have the mechanisms in place to seek to address this information gap. It will look to identify relevant research partners from the University or Industrial sectors; project managing, funding and supporting the delivery of that work; and communicating that information to other sports where the information may be of value.

UK Sport is also in the process of setting up an annual programme to engage more actively with the research community, and to seek further ways to apply research to the sporting sphere. This is expected to include some annual competitive awards to capture new and exciting ideas where research can have a performance impact in Olympic and Paralympic sport, with additional funding to take these ideas forward; annual awards for graduates to further investigate where project ideas are seen as ‘innovative’ and can provide a significant breakthrough in practice; and an annual competitive award to reward those establishments which have established a key critical line of inquiry over a period of time which has had an indirect impact on behaviour and practice in elite sport.

In addition, UK Sport is about to look to recruit research experts onto an advisory panel, specialising in the key priority sports science research themes which have emerged from a recent survey of staff (coaches, scientists, medics) within the high performance community. This exercise will provide small teams of expertise to drive forward specific areas of research pertinent to the needs of Olympic and Paralympic sport.

Government will continue to discuss with UK Sport how we can better direct and influence sports science research to benefit high performance sport, and will consider what more we can do to assist this process.

32. We recommend that the Research Councils include research into sports science within their funding remits. Furthermore, we urge the co-ordinating body, Research Councils UK to examine the ways in which sports science could be more effectively served across the Research Councils. (Paragraph 121)

Government Response

Sports related research is part of the remit of the Research Councils. For example, the Engineering and Physical Sciences Research Council (EPSRC) is funding the new “Sports Engineering: Simulation, Analysis, Methodology, Evolution” initiative at Loughborough University, which is looking at improving the design and manufacture of sports equipment. It is also funding research at Aston University to develop masts for racing yachts incorporating a stress monitoring system.

The Medical Research Council (MRC) and Biotechnology and Biological Sciences Research Council (BBSRC) currently fund research in a number of areas which have relevance to elite athletes, including muscle physiology, cardiac function, respiratory function, cartilage repair, bone biology, immunology, nutrition and the area of psychological interventions.

In addition, the Economic and Social Research Council (ESRC) is developing a collaborative research investment which is intended to address issues relevant to sports participation, elite sport and benefits from all kinds of sport e.g. in public health and economic regeneration.

As the examples above demonstrate, the Research Councils fund a range of research which is relevant to sport in a variety of different contexts. There is very high demand for Research Council funding and competition is intense. Proposals for sports research are reviewed on their merits alongside research proposals in other areas, which may currently be accorded higher priority for the Research Councils.

Research Council UK (RCUK) has a role in facilitating and coordinating research that spans the remit of more than one Council. It has already set up a cross-Research Council group to develop an RCUK strategy for the 2012 Olympics and Paralympics, where the challenge falls within their interests and activities, and is working closely with the Department for Trade and Industry (DTI) on this.

In terms of contributing to the competitiveness of Team GB, EPSRC and UK Sport are working together to explore the potential for research in engineering and the physical sciences to support elite athlete performance. UK Sport has analysed EPSRC's research database for funded projects that could offer the opportunity of knowledge/technology transfer into a sporting context. Three such pilot projects have been funded.

In addition, a series of workshops have been held based on three challenge areas identified by UK Sport (real time physiological measurement, sports equipment and sailing) where engineering and physical sciences research could provide a significant competitive edge. Feasibility funds have been secured to facilitate the development of projects to address sporting challenges resulting from the workshops and 25 such projects are currently undergoing peer review.

ESRC is also funding Olympic studentships to enable the UK's most talented sportsmen and women to combine the requirements of extended academic study and development of sporting excellence. MRC studentships also offer significant flexibility which may appeal to athletes and trainers.

The Research Councils recognise that there is always scope to increase the overall quality of sports-based research in the UK, although it may not be easy to define what 'sports science research' is and sporting applications may emerge from apparently unrelated programmes. The Research Councils would be willing to assist in a review of sports-based research, for example in the identification of appropriate research expertise.

33. We recommend that the Government develop a specific funding stream for research into legal mechanisms for enhancing human performance in sport. (Paragraph 122)

Government Response

Government and National Lottery funding for elite sport is channelled through UK Sport, which delivers the World Class Pathway Programme to athletes and the National Governing Bodies, and DCMS does not intend to introduce separate funding streams. This is currently catered for by the Research Councils UK.

The Committee will recognise that at the very highest level of sport, the difference between success and failure can be minimal and enhancing athlete and technical performance is critical to future success. For example, the combined time difference between five gold medals won in the Athens Olympic Games and silver was half a second.

This is precisely the role of UK Sport's World Class Pathway Programme, supported by the EIS. The NGBs can access leading edge advice and technology to support their own high performance programmes, and UK Sport is engaged in some very exciting but confidential work to benefit some Olympic sports.

Since 2004, UK Sport has operated a Research and Development programme, the budget for which has doubled since we won the right to host the 2012 Games. This is a sport-led programme which provides discrete performance solutions according to the needs and priorities of identified Lottery funded sports. Much of this work remains confidential and may therefore not enter the public domain due to the need to retain performance advantages prior to Beijing, Vancouver and London.

The EIS is also leading the way. For example, the EIS has developed 'The Sporting Edge' environmental chamber to help our athletes acclimatise to different climatic conditions. It is located at Bisham Abbey, and is the largest non-military facility of its kind in Europe.

UK Sport is currently developing additional small centres of excellence of research around critical priority areas in elite sport to ensure our athletes can compete at the highest level. These will complement programmes already in place but will be based around the needs and priorities of the sports. This strategy would provide a 'unique' world leading approach to research in elite sport.

But the Government and UK Sport recognise that we cannot afford to stand still in this area. For example, it is notable that at the recent World Swimming Championships in Melbourne, the 7th placed swimmer in a semi-final recorded a time that would have won a gold medal at the last Championships two years ago.

That's why we have been working to forge stronger links with both industry and the Research Councils to consider what more can be done to give our talented athletes the edge.

34. We urge UK Sport to develop formal mechanisms for the sharing of knowledge and information between the different sectors and to look at mechanisms for maximising the application of knowledge already in existence to the benefit of sport in the UK. Furthermore, we recommend that the UK Research Councils identify mechanisms for enhancing the sharing of information relevant to sports science between the different academic disciplines. (Paragraph 129)

Government Response

Government welcomes the Committee's recognition of the work UK Sport is doing with the EPSRC to address the issues of the transfer of knowledge across the different sectors. This area of work is in its infancy, and both Government and UK Sport are aware that dividends may be reaped by dedicating greater focus to this. Indeed, UK Sport is extremely keen to build on these links.

As set out in the response to Recommendation 31 and 32, UK Sport fully intends to evolve the work it has been doing with the research community, and in doing so will seek to maximise input from the range of sectors the Committee mentions in the report.

The Research Councils have also indicated their willingness to work with Government and UK Sport in taking this work forward.



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