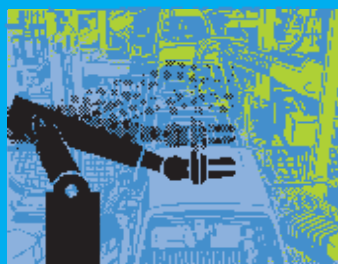
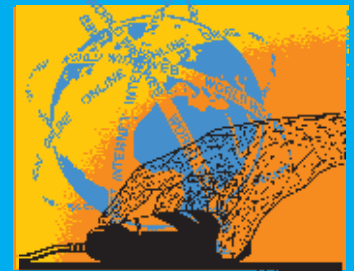


Working Programme of the Federal Institute for Occupational Safety and Health 2002 – 2005



Federal Institute
for Occupational
Safety and Health



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List of Abbreviations

ABAS	= Ausschuss für Biologische Arbeitsstoffe (Committee for Biological Agents)
AGS	= Ausschuss für Gefahrstoffe (Committee for Hazardous Substances)
ASGB	= Ausschuss für Sicherheit und Gesundheitsschutz auf Baustellen (Committee for Safety and Health Protection on Construction Sites)
AtA	= Ausschuss für technische Arbeitsmittel (Committee for Technical Work Equipment)
BAuA	= Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (Federal Institute for Occupational Safety and Health)
BgVV	= Bundesinstitut für gesundheitlichen Verbraucherschutz und Veterinärmedizin (Federal Institute for Health Protection of Consumers and Veterinary Medicine)
BMA	= Bundesministerium für Arbeit und Sozialordnung (Federal Ministry of Labour and Social Affairs)
CFC	= Chlorofluorocarbons
ChemG	= Chemikaliengesetz (Chemicals Act)
DASA	= Deutsche Arbeitsschutz Ausstellung (German Occupational Safety and Health Exhibition)
EC	= European Community
EEC	= European Economic Community
EU	= European Union
GDR	= German Democratic Republic
GDWA	= Gesundheitsdatenarchiv Wismut (health data archive of the Wismut company)
GS	= Gerätesicherheit (tested safety)
GSG	= Gerätesicherheitsgesetz (Equipment Safety Act)
ICOH	= International Commission on Occupational Health
ISSA	= International Social Security Association
OECD	= Organisation for Economic Co-operation and Development
ProdSG	= Produktsicherheitsgesetz (Product Safety Act)
ProdSRI	= Produktsicherheitsrichtlinie (Product Safety Directive)
SME	= small and medium-sized enterprises
SVermG	= Gesetz zur Regelung von Vermögensfragen der Sozialversicherung im Beitrittsgebiet (Act Governing Assets in relation to Social Insurance in the Acceding Area)
UBA	= Umweltbundesamt (Federal Environmental Agency)
UV	= Ultraviolet
WHO	= World Health Organization



Dear Reader,

The new “Working Programme 2002 – 2005” of the Federal Institute for Occupational Safety and Health covers four years for the first time. Its structure is based on the reorganisation of the Federal Institute, which came into effect on 1 June 2001. It is intended, together with other measures, to help give innovative, efficient and forward-looking shape to the subject of safety and health at work.

The working programme should be seen as a flexible framework for action within which the declared focal points in the work are to be dealt with on the basis of the objectives, models and fields of action shown. This is also intended to help ensure that research projects are specified more precisely during the term of the programme and that there is a reaction to current developments and requirements in occupational safety and health. The working programme is made more concrete in the form of annual work schedules. The Federal Institute for Occupational Safety and

Health is interested in a constructive discussion of the subject matter of the present working programme and its form.

The new working programme, together with the restructuring, is a further major element in the Federal Institute’s endeavours to cope with the challenges of tomorrow’s world of work. It should also be seen as a contribution to a discussion which German and international cooperation partners are currently conducting on the future of occupational safety and health.

The technically reorganised, streamlined structure of the Federal Institute will promote interdisciplinary collaboration, link the Institute’s sites more effectively in terms of technical matters and enable them to perform their work more efficiently. It is our concern that questions related to safety and health at work be answered appropriately and accurately.

I would be grateful for any ideas or criticism.

A handwritten signature in blue ink that reads "Hans-Jürgen Bieneck". The signature is written in a cursive, flowing style.

Hans-Jürgen Bieneck
President and Professor
of the Federal Institute for
Occupational Safety and Health

Economic and Social Framework and Conditions

The world of work is currently undergoing a profound process of change. The pressure to change is due in particular to the developments in information technologies. The acquisition, processing, transfer, propagation and use of information are playing an increasingly important role in the world of work. If current forecasts are accurate, four fifths of all human work will in the next few decades consist of activities where information is the raw material, tool and result. This will have far-reaching effects on the quality of work, on companies, on products and services, on the nature of work performed, on the structures of employment and forms of work, and on the working conditions and their consequences for safety and health. The consequences of this development towards the knowledge society with regard to employment – and hence also to safety and health at work – are many and varied. They range from the transformation of existing occupations, the development of new occupational fields – including the related re-evaluation of existing qualifications, occupational content and learning concepts – through to the change in forms of organisation and cooperation within individual companies, administrations and authorities and between the companies and sectors. The change also means that the focus of specific tasks is shifting and new fields of work are opening up. The comprehensive use of information and communication technology is loosening the tie between processes and persons to fixed work locations and working hours. The boundaries between the world of work and other areas of life are becoming increasingly blurred.

The globalisation of markets is giving rise to new forms of cooperation in a worldwide network. New models of gainful work and employment are

constantly developing which take account of the changed conditions of work. Overall there is a tendency to externalise individual stages of production and thus to transform large facilities into more flexible small and medium-sized ones. This interrupts production lines and hence also changes those communication processes needed for a reliable risk management. The global networking is also having a direct impact on work organisation in companies. New forms, such as non-territorial office solutions, complement conventional office organisation in accordance with the vision “work with those you want to, where you want to, when you want to”. Internet technologies and mobile information and communication technologies influence the generation of knowledge, access to knowledge and knowledge management. Their spread in all areas of life involve overall modified requirements regarding visual and auditory acuity, psychomental efficiency, the muscular-skeletal system and the cardiovascular system.

The globalisation of markets proceeds alongside a globalisation of the work equipment available. Whereas previously national rules and regulations were sufficient in order to design safe and healthy work equipment, over the past few years European and international regulations have begun to replace them. It can be expected that this development will continue steadily on an international level over the coming years. Owing to the regional difference in view of safety and health questions as well as to the related rules and regulations and how to handle them, there is a risk of a reduction in safety and health in a way that is already evident in specific areas, such as the area covered by the Equipment Safety Act. A global harmonisation of safety requirements and the related

testing and certification questions is essential here, combined with effective structures of market supervision effective across national boundaries. The prime objective of establishing purchasing requirements for products, specifically in international standards, must be to further the development of safe, low-emission and ergonomically designed products.

In addition to these future challenges, "classic" influencing factors continue to be important, even though they are also subject to change in extent and intensity. For example, there are about 20 000 chemical substances on the market in the EU whose potential dangerous properties are mostly unknown as yet. Every year about 100 new chemicals are added which are increasingly being developed and marketed for specific applications. This can also significantly change the exposure situation for the employees concerned. In industrial production installations and equipment are growing in complexity. Automation and the progressive use of micro-electronics for safety-related functions as well necessitate a further development of safety technology.

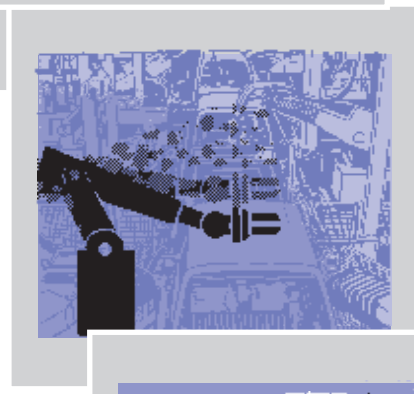
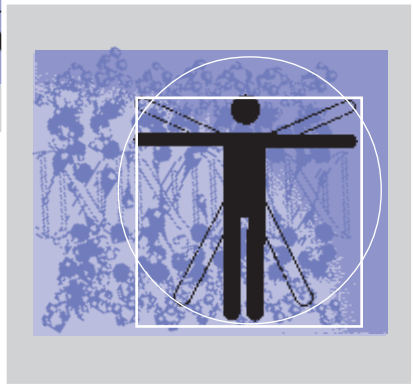
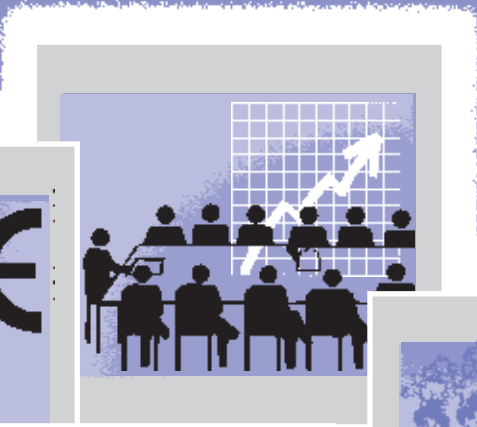
Technical and social change has an enduring impact on learning and working processes, work stresses and strains (e.g. with regard to the intensification of performance, information overload and work compression). But it also encounters changed health conditions in the population (multi-morbidity of the elderly, an increase in allergies and postural damage at a young age, lifestyle influences). It is therefore necessary to identify the effects of processes of social change at an early stage to make innovative use of the chances for humanising work in connection with psychomental strains and to deal with the new requirements by taking appropriate action.

The possibilities for action with respect to safety and health at work are enduringly changed among other things by the loss of corporate social structures and infrastructures or by the related greater exclusion of employees from the classic preventive domain. The models of prevention on the level of large companies can no longer be applied without restriction to an increasingly important area of the world of work. This is creating considerable pressure to modernise in occupational safety and health - including in the context of the new occupational safety and health legislation. This pressure will continue to grow as the proportion of employment in its "classic success en-

vironment" (medium-sized and large enterprises) declines.

Implementation of the main preventive notions of the new occupational safety and health legislation in terms of a forward-looking occupational safety and health policy is an essential challenge in view of the changes outlined. The systems of social protection must be adapted accordingly to take long-term account of the many different new challenges. Successes in the field of safety and health at work result demonstrably in a substantial economic relief in various areas of social policy, e.g. by reducing social costs, by pushing down accident figures, sickness figures, mortality figures, and by reducing the use of medical, social and rehabilitation services. There is therefore a considerable demand of innovative prevention concepts and instruments. In view of the forecast development towards a further increase in non-continuous and more flexible employment, resulting in correspondingly fragmented occupational biographies as the norm in working life, it will be much more difficult to monitor health and to define the causes of health changes due to specific working conditions.

Safety and health at work are aimed at preserving and promoting health. Under the model of preserving work capacity through one's entire working life, consideration must be given increasingly to questions of health-appropriate work design for elderly people and those whose health is impaired. Individual and social resources overall gain in importance with the development of forms of coping with changed health requirements and strains. The development of behavioural prevention must complement the level of circumstantial prevention already achieved and to be secured.



BAuA's Objectives and Focal Points of its Work

The objectives of the BAuA and the focal points of its work are geared, in terms of the tasks it is assigned, to the basic concern for maintaining and improving safety and health at work. The models for this are the safe design of technology and the humane design of working conditions. This also includes essentially the preservation and promotion of health and work capacity on the basis of a comprehensive health awareness and health behaviour.

The changes in the world of work with the transition to the knowledge society and the related future prospects for gainful work mean that there is a need to review, develop further and reorient the content, instruments and structures of safety and health at work. The clarification and prevention of work-related diseases and health risks, the preparation of design knowledge and the development and testing of design solutions for practice and the propagation to specific target groups of information are still focal points in the BAuA's work. Special weight is attached here to integrating safety and health in corporate decision-making, qualifying in-company and ex-company occupational safety and health players and linking occupational safety and health measures with economic factors.

In view of the changing framework conditions, resources and orientation in the field of safety and health at work, the significance of the BAuA will be judged by how far the result of its work can be applied efficiently with an orientation on problems and target groups. An essential basis for effective knowledge transfer is the construction of information technology infrastructures which include interactive networks.

The aim of efficient cooperation with other institutions at home and abroad is the setting of com-

mon priorities, avoidance of work duplication, cultivation of existing partnerships, preparation of supranational activities and dealing with complex, interdisciplinary questions on the division-of-labour principle. At the same time greater use must be made of synergy effects from cooperation with institutions and players in environmental and consumer protection. The BAuA's objective is to expand existing contacts and to develop and render usable new networks.

When shaping the existing programmatic framework by means of annual work and research plans, the BAuA relies, in view of its limited resources, increasingly on the setting of priorities. For this purpose criteria must be developed and applied to guide decision-making, criteria which facilitate the objective and transparent setting of priorities. In view of the great variety of influencing factors when setting focal points, sets of criteria are required which combine individual areas with their essential aspects. This includes the gravity and frequency of strains and their effects, the need for action-based knowledge, the usability of the results for the target areas of the specialist work as well as their significance in social policy and economic terms. The major framework conditions here are the need for advice and support on the part of the Federal Ministry of Labour and Social Affairs as well as the status and development of the BAuA's expert resources.

2.1

Design of Prevention in the Context of Social and Technological Change

The effects of a profound structural change in society, the world of work, industry and technology must be identified at an early stage, anticipated and monitored innovatively with due regard to the aspect of safety and health at work.

The industrial nations are currently undergoing a structural transformation with profound changes in the world of work and the social structure. The decentralisation of production and services, the outsourcing of corporate functions, virtual companies, extended workbenches and the establishment of hived-off or new small companies are the features of the changes in the in-company and inter-company division of labour. The development over the past few years leads one to expect for the future a further increase in new forms of employment, such as agency and temporary work, telework, permanently less employment and forms of new self-employment with the simultaneous decline in the „normal employment relationship“ as the regular form of work. The effects of this process of change must be identified at an early stage and analysed with respect to the chances and risks for the safety and health of the employees.

An increasing number of employed persons work in a system of working hours which deviates from the standard one. The consequences arising for employees, their social environment, their working efficiency and motivation and for social and health-related well-being have to date not been adequately clarified.

The demographic change has significant consequences for private enterprises and public authorities, and hence also for the social security systems. The guiding notion of a preventive strategy should be the creation of jobs and working requirements which make it possible to perform an activ-

ity until the regular age limit of 65 has been reached, taking into account particular individual and age-specific features. Furthermore enduring support must be given to integrating those who are unemployed and thus outside the system of gainful work, and doing this in accordance with the prevailing requirements.

The globalisation of markets and the international competitive situation, including that for social systems, means new challenges for the policy area of "safety and health at work". To back up national and European standards there is a need to develop new strategies and to intensify activities on a European and international level.

The design of prevention in the context of social and technological change is supported by the BAuA with the following objectives:

- The development of strategies for the early identification and mastery of the effects of increasing flexibilisation in the world of work on the safety and health of employees.
- The formulation of framework conditions for the health-appropriate design of working conditions in changing forms of work and organisation.
- The preservation of health and efficiency over the entire period of one's working life by developing approaches which are geared to occupational histories and requirements and to the individual.

- The identification of suitable models for securing the gainful activity of ageing employees by creating individual and corporate conditions, especially in small and medium-sized companies and in the service sector.
- Contributions to the development of sound criteria according to the relevant Codes of Practice for the flexible organisation of working hours.
- The collection of data on the change in products and their marketing in view of the structural change in industry and the service sector.
- The development of new strategies of market monitoring against the background of the Single European Market and the expansion of worldwide trade relations.
- Consideration of the effects of globalisation when securing the national and European level of occupational safety and health within the framework of international standardisation.

2.2

Clarifying and Preventing Work-Related Diseases and Health Risks

The continued clarification and evaluation of the complex relationship between work and health are fundamental to a knowledge-based and targeted prevention of work-related health risks and diseases.

By means of systematic prevention based on technical, organisational and medical aspects of occupational safety and health it has been possible in the past to make considerable progress in cutting occupational accidents and diseases. On the other hand, the preventive potential of identifying and reducing work-related health disorders and diseases, partly due to, worsened by or modified by working conditions in differing degrees, has not yet been adequately tapped or utilised. An analysis of the still high absenteeism rates provides clear indications of this. For major illness groups it is possible to a considerable degree that a cause or influence may be sought in risk factors present in behaviour and in the working, environmental and private domains. Estimates assume that a total in excess of 30% is caused (jointly or alone) by hazards in the world of work.

Consistent prevention in this domain can lead to a substantial reduction in lost production and lost value added and in the expenses required for treatment-based health and pension insurance and health-related early retirement.

Owing to their mostly chronic course, the frequently long latency times and a multifactor causation structure, the prevention of work-related health risks and diseases may often only show enduring effect in the medium and long term. Activities in this regard must therefore be approached on a long-term basis, guided by a strategy and be focussed. Account must be taken of both health risks due to the changes in the world of work and of previously unidentified or possibly seriously underestimated health risks and generally changing strain spectra.

As a result of the forecast, partial dissolution of classic work structures and work content, and

of the greater fragmentation of many occupational biographies, increasing account must also be taken of ubiquitous risks, i.e. those that are no longer specific to individual workplaces. Greater attention must be paid in future to strains from the use of information and communication technology, something which permeates all areas of life. The growing need for holistic, preventive approaches and solutions for all areas of life and a discriminating consideration of individual conditions are necessarily the consequence of this development. Overall, health risks in the psychomental and psychosocial domains are already sharply on the rise and are evident increasingly in the pattern of sickness. Stress is today already a weighty cost factor in many industrialised countries in the social domain. The "new" health risks must be countered in an appropriate and timely fashion by means of suitable preventive solutions, whose effectiveness must be suitably monitored and reviewed.

In order to effectively counter work-related health risks and diseases, taking due account of the pattern of sickness and demographic developments, it is necessary to continue the development of preventive care in occupational medicine, advice and early detection, combined with individual behavioural prevention and (workplace) health promotion.

To ensure improved prevention of work-related health risks and diseases, the BAuA sets itself the following priority objectives:

- Characterisation of the health effects of increased psychomental and psychosocial strains in modern forms of work.
- Determination of work-related causes of psychosomatic illnesses and the consequent formulation of preventive recommendations.
- Objectivation of health effects of physical impacts which are wide-spread in the world of work as the basis for risk assessments (high-frequency electromagnetic fields, ultraviolet and laser radiation, noise in selected spectral ranges, whole-body vibration).
- Characterisation and quantification of parameters of physical stress for the purpose of risk assessment, of clarifying pathogenic mechanisms and for clarifying the importance of individual modes of reaction.
- Characterisation of stresses and strains and assessment of the health risks of relevant hazar-

dous substances, biocidal products and biological agents.

- Further clarification of the adverse health effects of relevant hazardous substances and biological agents with respect to allergic and irritative skin and respiratory tract diseases, damage to the nervous system and disorders in human reproduction.
- Quantification, based on epidemiological studies, of the health risks of significant hazardous substance exposures (such as diesel soot, silicogenic dust, mineral dust, salt dust and ammonia) and special activities.
- Processing of international epidemiological knowledge on the proportion of avoidable, work-related risk factors in relation to the causation of illnesses to the cardiovascular and muscular-skeletal system.
- Further development of epidemiological methods for risk estimation and quality assurance in epidemiological research.
- Continued conceptual development of the inventory of occupational medical methods.

Exploiting and Improving the Data Basis with regard to Aspects of Safety and Health at Work

Reliable information based on efficient infrastructures constitute the major prerequisite for targeted and effective prevention.

A sound data basis for estimating preventive potentials and the need to place a monetary value on it are becoming ever more important when it comes to aligning and fixing the focus of preventive social policy on the part of government. A lack of or unreliable information may possibly prevent the development of timely solutions and essential developments. Valid data thus forms the crucial basis for targeted and effective prevention and for a reliable assessment of its effectiveness. It is therefore also an essential basis for the efficient control and use of financial and human resources when taking measures to ensure safety and health at work.

A national data basis on the nature, intensity and extent of strains and the degree of health impairments must be designed and implemented gradually and in cooperation with all major national players. It must be integrated in European information strategies and systems. As a first step it is necessary to examine and evaluate existing data stocks with a view to a suitable combination and methodologically correct analysis. The aim here is to obtain valid information on where, how and to what extent additional data is needed to supplement the wealth of information already available.

With regard to health matters, national institutions regularly collect data on special questions. This data has to date only been inadequately used for the purpose of health protection, however. That is why in future it will be analysed more closely in combination with other data stocks of the BAuA. In collaboration with the leading institutions, as-

pects of safety and health at work are to be taken into account in the future planning of surveys.

The basis and crucial approach for successful prevention is the inclusion of safety and health aspects at an early stage in the planning and design of products, work equipment, workplaces and workshops, installations and processes, and of work organisation. For this purpose suitable data and information on questions relevant to safety and health must be made available to developers and users.

To exploit and improve the information base, the BAuA sets the following priority objectives:

- Creation of a data basis on the nature, frequency and distribution of strains and health indicators according to occupations, industries and other work features to support the setting of priorities.
- Creation of a network for exploiting national data stocks for the assessment in terms of occupational medicine and epidemiology of the health situation among the working population.
- Up-to-date documentation and analysis of fatal work accidents in order to formulate targeted accident prevention measures.
- Creation of a data basis on the market volume for individual product groups in the meaning of the Equipment Safety Act and the Product Safety Act and their potential hazards as the basis of future action in terms of market supervision.

- Creation and optimisation of special databases to support risk evaluations and risk assessments to establish the state of the art, to ensure market transparency and to log and analyse accidents and major deficiencies in products.
- Collection and analysis of data on the nature and extent of child and youth employment and on their strain situation.

2.4

Development and Improvement of Methods and Instruments for the Detection and Evaluation of Risks

The state of scientific knowledge and of technology must be used more as an instrument to record and reduce safety and health shortcomings at work.

Despite extensive knowledge in the field of conventional strains and hazards (hazardous substances, noise, vibration, radiation, climate, incorrect physical strains, mechanical and electrical hazards) there is still a need, because of their widespread nature, for methods, instruments and procedures for risk estimation and reduction. This is also due to the present state of reliable knowledge. There is often still a lack of reliable quantitative or even qualitative information on adverse health effects. To assess frequently combined health risks there continues to be a lack of basic scientific knowledge.

In addition to the conventional strain factors, psychomental and psychosocial effects are steadily growing in importance. This involves not only opportunities, but also risks. Whereas favourable mental strains have positive effects, unfavourable

strains have negative consequences for motivation and performance and for safety and health.

The identification and assessment of risks and dealing with them must keep pace with the development of the world of work and science in general. This also means that questions of the individual, including natural and acquired performance impairments, must be taken more into account. Demographic developments in particular mean that a discriminating approach must be adopted here.

In parallel, new methods for the mathematical modelling of dose-response relationships must be tried out more energetically, as must the development of risk models on the basis of new data and new knowledge of relationships.

In future it will still be necessary under the Occupational Safety and Health Act to give priority to work on improved and practicable aids for assessing work-

ing conditions and their introduction - especially in SME. An intensive exchange of experience between all the major players is necessary to avoid parallel developments and to exploit synergies.

The priority objectives of the BAuA with regard to the development and improvement of methods and instruments of risk estimation and reduction are:

- Further development of procedures for identifying and assessing mental work strains and for the complex evaluation of psychomental stress.
- Continued development and evaluation of hazard-specific and process-specific methods of risk assessment at the workplace.
- Further development of methods for collecting and evaluating the potential hazards of biological, chemical exposure factors and physical strain factors.
- Improvement of substance-related occupational safety and health by promoting, developing and testing suitable concepts and measures (especially the use of intrinsically safe chemical products, concept of adequate control measures for chemicals and biological agents, control value concept for biological agents, compliance with regulations in companies, risk acceptance with certain occupational exposure limits).
- Further development of the procedures for measurement and the establishment of principles for assessing and implementing low-emission production processes and machines.
- Development and testing of procedures for the ergonomic testing and use suitability of software.
- Development and testing of procedures for biological monitoring (welding fumes, aluminium, benzene) to improve preventive care in occupational medicine.

2.5

Safe and Healthy Design of Work and Technology

Man must be central to and the measure of all economic activity. The safe and healthy design of work and technology must therefore be accorded a high priority in social and economic policy.

The formulation of safety and health protection requirements with respect to workplaces, installations, agents, work equipment and workshops, the development and testing of design solutions and the processing of design knowledge for practical purposes are still the focal subjects of the BAuA's work. Starting with the qualitative and quantitative recording and evaluation of

different kinds of hazard and risk in the world of work, it is still necessary to develop model design solutions for individual hazard aspects. On the other hand the change in work systems, which is characterised by the greater importance of mental strains, necessitates an increasingly system-related and holistic consideration of all strains.

With regard to specific strain situations, such as the lifting and carrying of heavy loads and the relating stresses, both activity-related and sector-specific design measures must be developed. The focal points in the field of circumstantial prevention are the humane design of the workplace, the substances and agents, the work equipment as well as the use of technical aids.

Support for small and medium-sized companies is still of major importance. The modernisation of regulations governing safety and health at work make it necessary to provide such companies in particular with assistance in the form of practicable design measures for corporate application.

The development of humanely designed elements of the work system requires an evaluation of safety and health protection at the designer's and factory planner's. As a result design solutions must be prepared in such a way that they can also be used by developers, designers and factory planners.

For the safe and healthy design of work and technology the BAuA pursues the following objectives in the programme period:

- Assessment of strains at workplaces with new technologies, especially information and communication technologies, and development of integrative, model-type design solutions for products and work systems.
- Ergonomic design of workplaces with physical strains due to the lifting and carrying of loads or persons.
- Evaluation of prevailing exposure conditions, formulation of protection concepts and provision of practice-related aids to action and principle solutions for specific risk factors.
- Further development and testing of principles for determining and reducing the emission from machines with the aim of quantifying the state of the art, designing low-emission machines and creating market transparency.
- Integration of safety and health protection requirements in the design work.
- Formulation of safety requirements for installations and processes, especially with the use of new technologies.
- Analysis of specific hazards and strains and formulation of measures for the safe and healthy design of work and technology in sectors and

in the case of work processes with high accident and illness rates.

- Promotion of behaviour appropriate in terms of occupational safety and health by drawing up design rules for equipment and processes rooted in the relevant Codes of Practice.

Integration of Safety and Health in Corporate Procedures and Sequences

The integration of corporate occupational safety and health in management decisions and corporate philosophies not only helps improve safety and health of employees, but also enhances enduringly the competitiveness of companies and organisations.

The development and testing of concepts and models for the organisation and quality improvement of corporate occupational safety and health still has high priority, thus it creates the conditions for implementing safety and health in private enterprises and public authorities effectively and efficiently. This also includes in particular the further development of quality systems and quality standards for occupational safety and health care.

Occupational health and safety management systems are an effective instrument for the continuous improvement of the organisation and quality assurance of corporate occupational safety and health. Such systems must be designed in such a way that they can be implemented effectively, inexpensively and simply. The same applies to the rules and standards on which occupational safety and health is based. The concepts required for this purpose have to be developed further, harmonised on a broad basis and integrated in corporate decision-making.

Close attention should also be paid to linking safety and health at work with economic factors. The expansion and optimisation of the possible actions and instruments to date help not least to improve the competitiveness of companies and organisations.

Motivation, communication and social support at the workplace form the core elements of modern management forms. In this respect and also with respect to optimising working conditions, workplace health promotion measures are a major

contribution in ensuring that the preventive purpose of occupational safety and health legislation is fulfilled.

To support the integration of safety and health in corporate procedures and sequences, particular importance is attached to achieving the following objectives:

- Development of model-type solutions for the organisation and qualitative improvement of the corporate occupational safety and health system. Participation in the development of promotional focal topics plus ongoing scientific support and, where relevant, evaluation of the model project within the framework of the research programme of the Federal Ministry of Labour and Social Affairs entitled "Promotion of Model Projects for Combating Work-Related Diseases"
- Improvement of company medical and safety care in small and medium-sized enterprises by the further development of models for alternative care concepts, taking account of new forms of work and employment.
- Improvement of the qualification of corporate occupational safety and health players.
- Enhancement of the quality of safety and occupational medical care, including the needs and forms of cooperation between the players in corporate occupational safety and health and establishment of guidelines and methods of quality assurance.

- Development of a concept for occupational health and safety management systems which has been harmonised internationally, taking account of other management domains such as "quality" and the „environment“.
- Targeted promotion of occupational health and safety management systems in the companies by demonstrating the practicability and benefit for companies.
- Development of indicators and methods for monitoring the effectiveness of the rules and standards for safety and health at work.
- Drawing up of systematic indicators and parameters for assessing safety and health protection in companies and providing practice-based aids which take account in particular of the needs of small and medium-sized enterprises.
- Optimisation of the methods and instruments for the economic evaluation of safety, health and prevention.
- Improvement of the integration of workplace health promotion in corporate routines and sequences, especially those of small and medium-sized enterprises and developing and evaluating problem-oriented prevention programmes.
- Development of models of efficient company medical strategies for change of workplace or occupational reintegration of persons whose capacities have changed under the Occupational Safety Act.

2.7

Continued Propagation of the Notion of Occupational Safety and Health by Processing Knowledge and Imparting Information Relevant to Action

The extensive need for advice, information and education for politicians, the social partners and the wider specialist public requires a reliable and target-group-oriented processing and transfer of knowledge on the relationship between work, safety and health. Among the general public greater efforts should be made to further an active awareness of safety and health in the context of work.

The Federal Institute collects, analyses, processes and generates during the course of its specialist work data and information on questions of safety and health at work. It uses this mainly to advise, inform and educate.

For the BAuA this is a major contribution towards improving safety and health at work. The processing and communication of information deal with the differentiated interests of the target

groups. They must be reliable and up-to-date in terms of subject-matter and must use efficient channels and means of information.

In future the BAuA will attach considerable importance in particular to two aspects of information management. In view of the increasing role of individual design, competence and responsibility due to the changes in society, the social system and the world of work, the individual need for in-

formation will grow substantially. This trend is bolstered by the increasing individual use of modern information and communication technologies (Internet).

Globalisation and the limitation of resources together make a closer cooperation and communication between the players absolutely essential. Information management must accordingly create and promote possibilities for propagating and communicating information. In addition to the classic, established information strategies and forms, new forms of interactive information supply and the inclusion of informal or cooperative network structures are being used on a national, European and international level.

The processing and transfer of knowledge geared to specific target groups is still becoming more important. This development must be taken into account with the provision of quality-assured information (models of good practice, guidelines etc.), the transfer of knowledge to players and multipliers, the transfer of the necessary practical and social expertise, and the use or initiation of suitable networks. Special weight must be given to the appropriate processing of knowledge in order to support safety and health protection in small and medium-sized enterprises.

Overall, the role of didactic knowledge transfer with respect to occupational safety and health, in other words the need-related transfer of problem awareness and practical knowledge through education, training and popularisation, will grow in all areas of knowledge. To control the supply more efficiently therefore the possibilities for determining specific information and communication needs and the evaluation of the existing supply of information must be improved. Previously successful approaches must be developed further using modern media.

In the overall process of knowledge transfer the German Occupational Safety and Health Exhibition (DASA) plays an especially important role. As an actively educational facility it makes use of pedagogical means whose quality and scope must be put on a more secure basis and developed further. The supreme goal of the DASA is still to create an awareness for safety and health in the world of work. Using an effective marketing strategy, the DASA should be strengthened in its function as a communication and events venue, as an information hub and a forum for players and multipliers in occupational safety and health.

The BAuA's knowledge management has set the following priority objectives:

- Promotion and development of competencies to act on the part of the occupational safety and health players (especially company doctors, occupational safety and health specialists) by means of application-based concepts and measures with respect to quality-assured and target-group-oriented knowledge transfer and qualification.
- Promotion of the integration of safety and health in corporate strategies and corporate management by targeted knowledge transfer to management personnel.
- Promotion of behaviour appropriate to safety and health as part of the occupational competency to act by developing and testing approaches for including occupational safety and health matters in occupational basic and further training.
- Development and model-type testing of aids to action with respect to the implementation of statutory regulations in practice (such as the production and use of chemical products, the concept of adequate control measures of the Biological Agents Ordinance etc.).
- Provision of practical instructions for preventing or reducing occupational health risks (especially in connection with psychomental and psychosocial strains, deficient ergonomic design, risks from hazardous substances).
- Target-group-oriented processing of the latest knowledge on health effects from working conditions, specifically on the consequences of technical/organisational change and the flexible deployment of personnel, and the issue of informative literature and the design of multi-social information sources for the general public.
- Continued development of the DASA as an instrument of the public transfer of knowledge and values, specifically by adapting transfer goals and models on the basis of the changing world of work and by developing non-profit marketing for a humane work culture of the future.
- Ensuring that the DASA is operated in a way appropriate to those it addresses, including also rotating exhibitions on current topics from the world of work and development of an exhibition forum for safety and health at work.

2.8

Initiation and Promotion of National, European and International Cooperations and Networks

Cooperations and competence networks are absolutely indispensable when it comes to achieving national, European and international occupational safety and health strategies and standards and using resources efficiently.

The growing complexity of the world of work and the advancing Europeanisation and globalisation of occupational safety and health and social policy problems confront the BAuA with the task of expanding the existing cooperative relationships on a national, European and international level. The basis for this is provided by the cooperative networks and relationships on a national level with, among others, government occupational safety and health bodies, statutory accident insurance bodies, professional associations, craft chambers, guilds, further training bodies, partners to collective agreements and research facilities. In addition there is the involvement in cross-specialism research and development programmes, which should be strengthened further to solve interdisciplinary questions. Possible synergy and saving effects from the joint use of human and material resources must be used more specifically in future.

Material and statutory framework conditions for safety and health protection are being laid down progressively on a European and international level. This internationalisation requires intensified cooperation in a European and international context in order to exchange information and develop common strategies for the efficient use of resources. The close cooperation with the European Agency for Safety and Health at Work in Bilbao, which acts as a European information and coordination hub is accorded special importance. In addition it is intended to continue and expand the collaboration with the national occupational

safety and health institutions of the member states and international institutions and bodies.

The following cooperations and networks have a special status for the BAuA in the context of their national, European and international collaboration:

National cooperations

- Initiation and consolidation of national networks for safety and health protection, especially for small and medium-sized enterprises by developing and evaluating model-type procedures and catalogues of criteria, for example for multimedia knowledge and communication networks.
- Cooperation in networks to set up national databases, e.g. hazardous substances database of the Federal States, research database, the "practical solutions" database on the Internet.
- Participation in the nationwide UV monitoring measuring network to obtain and provide occupational safety and health data on global ultraviolet radiation.

European cooperations

- Participation in designing the information network of the European Agency for Safety and Health at Work in Bilbao.
- Participation in research networks and network projects within the framework of European research programmes.

- Coordination of the European Network for Workplace Health Promotion in the development of a standardised European process model for the blanket further development of workplace health promotion.
- Cooperation with occupational safety and health institutes of the member states, e.g. in drawing up a concept for adequate control measures for chemical products.
- Participation in the Europe-wide collection of data on accidents in the home and during leisure activities.
- Compilation of quality criteria for company medical and safety care within the scope of the "Occupational Health Services Quality Management Network in Europe".

International cooperations

- Involvement in the International Group of Directors of Research Institutes for Safety and Health at Work.
- Performance of the function of the „WHO-Collaborating Centre for Occupational Health“ for the setting of priorities and the further development of occupational medicine on an international level.
- Participation in the OECD for the main topics of "Sustainable Chemistry", "Risk Communication" and "Socio-economic Factors".
- Participation in the WHO Network of the Baltic States for Safety and Health.
- Participation in the international section of the ISSA for education and training in prevention.
- Participation in Scientific Committees of the International Commission on Occupational Health (ICOH).

3

Tasks Assigned by Law or by Order

3.1 Chemicals Act

The Chemicals Act governs the placing on the market and handling of industrial chemicals. The main points of the Act are an obligation to test and mandatory notification. Every producer and importer wishing to launch a new substance onto the market is obliged to test this substance for dangerous properties on his own responsibility and to notify the substance before it is first put on the market to the Federal Institute for Occupational Safety and Health, the Competent Authority under this Act.

The work of the Competent Authority is aimed at acquiring data on chemical substances, checking the quality of the data and passing it on and making it available for specialist competent bod-

ies. Together with the Risk Assessment Units (BAuA, BgVV, UBA) the documents submitted will be reviewed to check their validity, i.e. the scientific accuracy of the tests performed. Then the risks emanating from the substance will be assessed by the Risk Assessment Units. The task of the BAuA as a Risk Assessment Unit for occupational safety and health is of particular importance because employees are invariably the first and often also the only ones to be exposed. The results of the substance-specific risk assessments are implemented in the form of classification and labelling, improvement of the information on hazardous substances and preparations as well as measures for restrictions and bans to minimise the risks.

3.2 EC Regulation on Existing Chemicals

The notification and testing obligations adopted for chemicals under the Chemicals Act apply to substances newly launched onto the market. This means that problems possibly caused by existing substances are not evident or soluble, however. A special uniform regulation throughout the EU was created in the form of the "Council Regulation on the Evaluation and Control of the Risks of Existing Chemicals" (Council Regulation on Existing Chemicals) in 1993.

The member states compile jointly with the European Commission lists of those chemicals to be dealt with as a matter of priority. The aim of

dealing with the priority existing substances is to highlight the risks arising from the chemical throughout its life cycle for employees, consumers and the environment, to weight them critically in a risk assessment process and, where necessary, to propose measures to reduce certain risks. As with new substances, the assessment is the task of the Risk Assessment Units.

The Competent Authority under the Chemicals Act is rapporteur for priority existing chemicals assigned to Germany. It is thus the contact for industry, which is obliged to supply data, and coordinator for the tasks assigned to the Federal authorities.

3.3 Biocides Act

The Biocides Act regulates the licensing procedure and bringing on the market of biocidal products for use on the European market. The BAuA will probably become both the Licensing Authority and the Agreement Unit for occupational safety and health. As the Licensing Authority, the BAuA in principle performs similar functions to those under the Chemicals Act and the EC Regulation on Existing Chemicals. In its function as Agreement Unit, it assesses

the risks involved in the products' use at workplaces and, where relevant, it lays down special conditions for the licensing. To protect employees, those bringing the products on the market may be obliged to pass on certain information on dangerous properties of the biocidal agents and products. In addition further product-specific and use-specific restrictions may be laid down with regard to the handling of the licensed product.

3.4 EC Regulations on Special Chemicals

Export-Import Regulation (EEC) 2455/92

The Export-Import Regulation lays down that certain hazardous chemicals may only be exported if the receiving country has previously given its permission. With the Rotterdam Convention of 1998 this procedure, which was initially only legally binding within the EU, was agreed internationally. The Competent Authority is the competent national authority.

CFC Regulation (EEC) No. 594/91

The use of substances which endanger the ozone layer (chlorofluorocarbons, CFC) is quoted. When such CFC are imported a licence is issued by the European Commission. The Competent Authority is the National Contact Office for the EU.

3.5 Equipment Safety Act (GSG) and Product Safety Act (ProdSG)/ Product Safety Directive (ProdSRI)

The Equipment Safety Act sets purchasing requirements of a principle character for technical work equipment to ensure safety and health protection. These purchasing requirements are formulated as basic safety goals which specify the degree of safety and health protection to be complied with. The way in which these basic requirements are met is the responsibility of the producer or importer or of the dealer.

While the Equipment Safety Act's main area of application is technical work equipment, the Product Safety Act applies to all products intended for private use by consumers and which are brought into circulation commercially. The provisions of the cor-

responding European Product Safety Directive only apply where there are no specific provisions in other statutory regulations.

The BAuA performs the mandatory information and instruction duties provided for in the Equipment Safety Act and the Product Safety Act or Product Safety Directive:

- Implementation of the notification procedure under the GSG (notifications according to Safeguard Clause; fault notifications for information purposes).
- Implementation of the fast information procedure "RAPEX" to provide immediate infor-

mation to the EU Commission and the competent authorities of the other member states under the PrdSRI.

- Publication of prohibition injunctions which have become incontestable or whose immediate enforcement has been ordered.
- Keeping of Directive-related harmonised and non-harmonised lists of standards and publication in the official government journals Bun-

desarbeitsblatt and Bundesanzeiger.

- Compilation and publication of the GS testing bodies in the Bundesarbeitsblatt.
- Notification of accredited, approved German certification bodies to the EU Commission and to the member states. Keeping and publishing current lists of approved European certification bodies.

3.6 Act Governing Assets in relation to Social Insurance in the Acceding Area (SVVermG)

In the Gesundheitsdatenarchiv Wismut (GDAW – the Wismut health data archive) the Federal Institute manages and secures the patient-related files and documents from the former health system of the Wismut company, i.e. for the employees of the uranium mines in the former GDR, in accordance with the SVVermG.

The statutory mission for this purpose involves the task of transferring data to social benefit bodies, to courts in connection with relevant proceedings, to affected persons and, where relevant, to dependants, as well as to doctors providing treatment. Furthermore facilities are provided for

processing and utilising the data for the purpose of scientific research, especially with respect to questions of occupational medicine and radiation biology.

The systematic analysis is conducted in close collaboration with the Central Federation of the Industrial Berufsgenossenschaften and the Federal Office for Radiation Protection.

The results of the epidemiological analysis of the patients' documents are aimed mainly at an assessment of occupational risk factors regarding the causes of and influences on work-related diseases.

3.7 National, European and International Regulations and Standardisation

German occupational safety and health law including the regulations for placing on the market work equipment has been largely reformulated and supplemented over the past few years on the basis of EC law. This reformulation work, which has not yet been completed, must still be supported by the BAuA.

In the domain of EC occupational safety and health law the focus is shifting from the implementation of European occupational safety and health directives and the Single European Market directives relating to occupational safety and health in terms of national law increasingly towards questions of the application of such statutory regulations in practice. In certain areas this makes it necessary to expand and build up rules and standards below the legislative level and re-

quires the finding of knowledge on the application and enforcement of the provisions, the drawing up of practice-related aids to action and the development of suitable, target-group-oriented information sources.

In addition with the advance of globalisation it will be necessary to deal with new tasks connected with international harmonisation and the worldwide endeavours to harmonise social standards.

For the BAuA this means a varied participation in national, European and international committees. On a national level the BAuA works in particular in advisory groups of the Federal Ministry of Labour and Social Affairs (amendment of directives) and in Federal/State committees (exchange of experience). On a European level the Institute's participation in EC committees entrusted with the

task of ensuring an uniform EC occupational safety and health legislation throughout Europe is of special importance. One example here is the further development of the EU principles of "risk management" and "risk assessment".

Since the safety goals, principles and undefined legal terms in the EC directives are increasingly being given concrete form in standards, the work of the BAuA in the formulation of these standards is of special importance, not only on a national level, but also on a European level and internationally. This involvement concentrates on the one hand on the originally relevant fields of safety, hazardous substances, the working environment, ergonomics and organisation, but it is also concerned with more general areas such as the princi-

ples of the safety and ergonomic design of workplaces, work equipment and work systems.

The committee work in the field of "management systems" is illustrative of the integrating, cooperative approach between mutually interacting fields (occupational safety and health, general safety, quality, the environment) and of the way it is dealt with on different levels (national, European, international).

By participating in international committees the Federal Institute wishes to help ensure, by creating principles which apply uniformly throughout the world, that only safe and non-health impairing substances, work equipment and products are sold and that measures to supervise the market become more indispensable.

3.8 Management of Committees

The effort to support the application of government regulations by laying down concrete rules and standards and developing practical aids requires considerable specialist participation on the part of the Federal Institute for Occupational Safety and Health. Technical rules are drawn up as a priority instrument for specifying the regulations in concrete form by committees set up at the Federal Ministry of Labour and Social Affairs.

Committee for Hazardous Substances (AGS)

The Committee for Hazardous Substances (AGS) advises the Federal Ministry of Labour and Social Affairs in all questions of occupational safety and health relating to hazardous substances, including classification and labelling. In accordance with Article 52 Par. 8 of the Hazardous Substances Ordinance the Federal Institute for Occupational Safety and Health manages the business of the Committee.

Committee for Biological Agents (ABAS)

The Committee for Biological Agents (ABAS) is rooted in the Biological Agents Ordinance and advises the Federal Ministry of Labour and Social Affairs in all questions of occupational safety and health in relation to biological agents. In accordance with Article 17 Par. 6 of the Biological Agents Ordinance the Federal Institute for Occupational Safety and Health manages the business of the Committee.

Committee for Safety and Health Protection on Construction Sites (ASGB)

The Committee was established on the basis of an order issued by the Federal Ministry of Labour and Social Affairs in February 2000. It is made up of representatives of house builders, the social partners, the supervisory institutions and experts. It advises the Federal Ministry of Labour and Social Affairs in questions of safety and health protection on construction sites. The BAuA manages the business of the Committee.

Committee for Technical Work Equipment (AtA)

The Committee for Technical Work Equipment (AtA) is rooted in Article 8 Par. 1 GSG and advises the BMA with respect to the enforcement of this Act. The Committee consists of experts from the authorities of the Federal States, the statutory accident insurance bodies, the Deutsches Institut für Normung e. V., the employers' federation, the trade unions and participating associations, who are responsible for occupational safety and health. The Federal Institute for Occupational Safety and Health manages the business of the Committee.

Committee for Plant Safety

In future the Committee for Plant Safety will bring together the committees according to Article 11 GSG, e.g. the committees for acetylene facilities,

lifting equipment, installations for flammable liquids, pressure equipment and explosion-proof electrical systems.

The Committee for Plant Safety is to be provided with a statutory basis in the form of the Plant Safety Ordinance.

Medical Experts Advisory Board at the Federal Ministry of Labour and Social Affairs – “Occupational Diseases” Section

The Federal Ministry of Labour and Social Affairs is advised in the performance of its tasks for the formulation of occupational diseases legislation under Article 9 Par. 1 of the Social Code VII – Statutory Accident Insurance – by the „Occupational Diseases” Section of its Medical Experts Advisory Board. The BAuA supports the Federal Ministry of Labour and Social Affairs in man-

aging the business of the “Occupational Diseases” Section.

Statutory provisions governing recognition, compensation and prevention are continuously developed on the basis of the exploitation and scientific interpretation of occupational medical findings. When formulating or incorporating occupational diseases list items anew in the annex of the Occupational Diseases Ordinance in accordance with the conditions of Article 9 Par. 1 of the Social Code VII, the BAuA prepares drafts of scientific justifications, occupational disease specifications for medical examinations and comments and proposals with respect to problem areas.

The Federal Ministry of Labour and Social Affairs continues to receive advice and support with regard to the development of occupational diseases legislation in the European and international context.



BAuA, Head Office Dortmund

BAuA/DASA, Dortmund





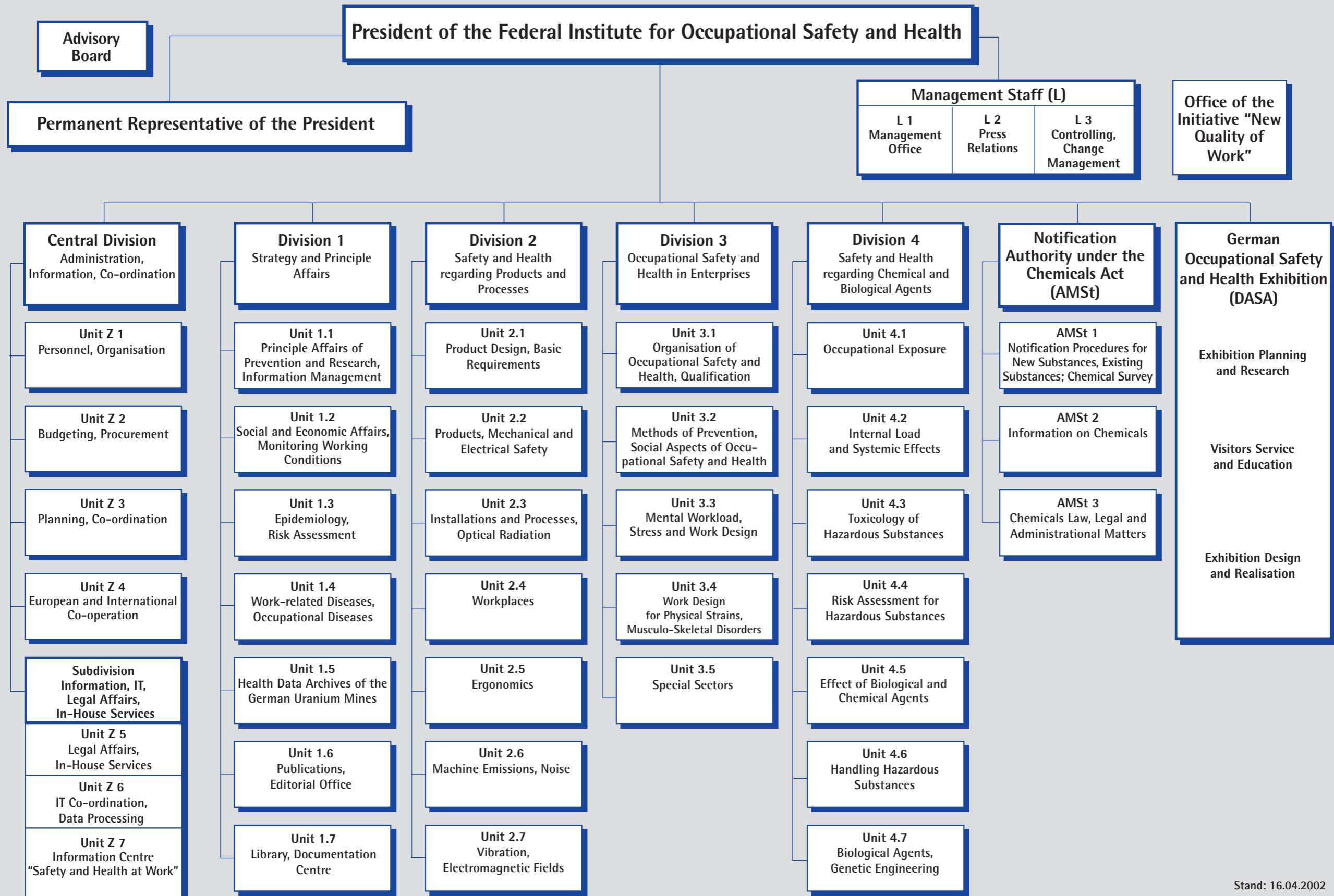
BAuA, Office Berlin

BAuA, Office Dresden





Organisation Chart of the Federal Institute for Occupational Safety and Health





DASA

Deutsche
Arbeitsschutz
Ausstellung

Bundesanstalt für
Arbeitsschutz und
Arbeitsmedizin

German Occupational Safety and Health Exhibition (DASA)

Under the heading "Man – Work – Technology" the German Federal Institute for Occupational Safety and Health (BAuA) presents within the German Occupational Safety and Health Exhibition (DASA) "a world of experience" to see, hear, and participate in. The main point of this permanent exhibition in Dortmund is to impart knowledge about occupational safety and health through experiences to different groups of visitors (specialists, students, apprentices, and the general public) to make sure that occupational safety and health finds its way into public consciousness. In following this aim – enhancing people's awareness for a better work environment – the DASA is singular in the world.

All exhibition units have study zones where those interested, as well as specialists, can educate themselves at leisure on a wide range of subjects by examining data banks and up-to-date research results.

Information and Registration

for the German Occupational Safety and Health Exhibition (DASA):

by post

Deutsche Arbeitsschutzausstellung
der Bundesanstalt für Arbeitsschutz
und Arbeitsmedizin
Friedrich-Henkel-Weg 1 – 25
D-44149 Dortmund (-Dorstfeld)

by telephone: 0231 / 90 71 - 645

by telefax: 0231 / 90 71 - 267

by e-mail: dasa@baua.bund.de

by internet: <http://www.dasa-dortmund.de>

opening hours

Tuesdays – Saturdays:

09.00 – 17.00 h

Sundays and public holidays:

10.00 – 17.00 h

closed on Monday

free entrance

How to reach the BAuA/DASA:

by car/bus

A 40/B1 – Ruhr Schnellweg

Exit Dortmund-Dorstfeld/Universität

Follow signs to BAuA

by train

From Dortmund-Hbf:

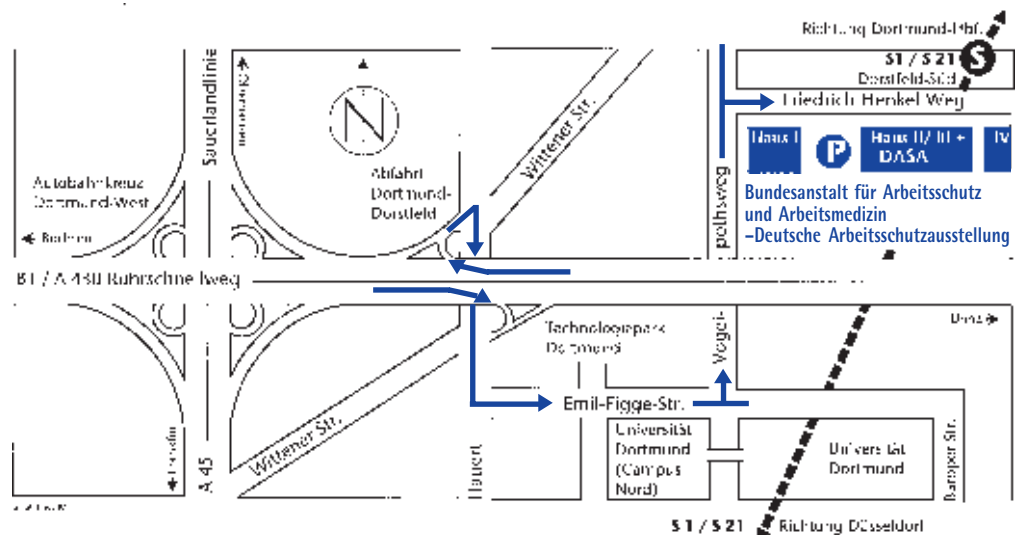
S 1/S 21, towards Düsseldorf

Station: Dortmund-Dorstfeld-Süd
(about 5 min.)

From Bochum-Hbf:

S 1/S 21, towards Dortmund

Station: Dortmund-Dorstfeld-Süd
(about 20 min.)





DASA

German Occupational Safety and Health Exhibition