Report on the current situation in relation to occupational diseases' systems in EU Member States and EFTA/EEA countries, in particular relative to Commission Recommendation 2003/670/EC concerning the European Schedule of Occupational Diseases and gathering of data on relevant related aspects

Social Europe

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1 Introduction

1.1 Foreword

This is the report of the project to review the current situation in relation to the occupational diseases system in EU Member States and EFTA/EEA countries, in particular relative to Commission Recommendation 2003/670/EC (the Recommendation) concerning the European Schedule of Occupational Diseases (OD) and gathering of data on relevant related subjects.

The Community strategy (Communication COM (2007) 62 final of 21st February, **2007 'Improving quality and productivity at work: Community strategy 2007-2012** on health and safety at work') specifically committed the Commission to an evaluation of the Recommendation and this is what this project delivers.

The project comprised ***three stages*:**

- A preparatory stage, including literature review as well as the development of templates and instructions for national experts;
- Data collection and the composition of reports by national experts;
- In depth analysis, workshop, synthesis and reporting.

It should be noted that the project generated a great deal of valuable information, which illustrated both the diversity and consistency of approaches across the participating countries. At the heart of the exercise were the national reports, many of which gave a balanced description of the state of play. However the reports varied in scope and depth because of for example, the availability of information on ODs and OD-policy and participation of representatives of stakeholder organisations. One of the consequences is that in some countries more activity is taking place than can be reported here, whereas in other countries it is difficult to be clear on some important issues.

A more detailed treatment of all these issues is given in subsequent sections of this chapter.

1.2 The burden of occupational diseases

Occupational factors make an important contribution to the global burden of disease. Work-related morbidity and mortality not only result in suffering and hardship for the worker and his or her family, but also adds to the overall cost to society through lost productivity and increased use of medical and welfare services.

The Community strategy 2007 -2012 on health and safety at work concludes: "Occupational accidents and diseases represent an enormous financial burden for public and private social protection systems and require an integrated, coordinated and strategic response, as well as cooperation between the main parties involved in

the European Union with regard to the development of Community and national policies."

The International Labour Organisation (ILO) estimated that the total costs of occupational accidents and work-related diseases are 4% of the gross national product (GNP); ILO Safety in numbers 2003.

A study within the EU calculates the cost of work-related ill health at a minimum of €145 billion. This extrapolation is based on several unfounded assumptions, but it gives some idea of the range of the cost of occupational diseases in the EU as a whole (http://osha.europa.eu/en/publications/outlook/new-and-emerging-risks-in-occupational-safety-and-health-annexes).

The cost to society has been estimated at 2-4% of the gross national product in different studies in different countries. The most common fatal work-related disease groups are cancers (25%), circulatory diseases (21%), and communicable diseases (28%) (Hämäläinen et al, 2011).

Definition of Work-Related Diseases and Occupational Diseases

ILO background

The concepts of work-related diseases and occupational diseases have always been a matter of discussion. In 1987, a joint ILO/WHO expert committee on occupational health offered the suggestion that the term *work-related diseases* may be appropriate to describe not only recognised occupational diseases, but also other disorders to which the work environment and performance of work contribute significantly as one of the several causative factors (Joint ILO/WHO Committee on Occupational Health 1989). When it is clear that a causal relationship exists between an occupational exposure and a specific disease, that disease is usually considered both medically and legally as occupational and may be defined as such. There is a wide range of diseases that could be related in one way or another to occupation or working conditions. On the one hand, there are the classical diseases that are occupational in nature, generally related to one causal agent and relatively easy to identify. On the other hand, there are all sorts of disorders without strong or specific connections to occupation and with numerous possible causal agents. Many of these multiple cause diseases may be work-related only under certain conditions.

The relationship between work and disease was described in the following way by the ILO in 1993:

occupational diseases, having a specific or a strong relation to occupation, generally with only one causal agent, and recognised as such

work-related diseases, with multiple causal agents, where factors in the work environment may play a role, together with other risk factors, in the development of such diseases, which have a complex aetiology

diseases affecting working populations, without a causal relationship with work but which may be aggravated by occupational hazards to health.

Two main elements are present in the definition of occupational diseases:

- the exposure-effect relationship between a specific working environment and/or activity and a specific disease effect, and
- the fact that these diseases occur among the group of persons concerned, with a frequency above the average morbidity of the rest of the population.

The exposure-effect relationship must be clearly established through clinical and pathological data and knowledge of the occupational background and job analysis are indispensable. In addition epidemiological data are useful for determining the exposure-effect relationship of a specific occupational disease and its corresponding activity in specific occupations.

EU context

In the EU context, the approach to OD statistics is set out in Regulation (EC) no 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:354:0070:0081:EN:PDF.
The definitions are in Annex V:

"A case of ***occupational disease*** is defined as a case recognised by the national authorities responsible for recognition of occupational diseases. The data shall be collected for incident occupational diseases and deaths due to occupational disease.

Work-related health problems and illnesses are those health problems and illnesses which can be caused, worsened or jointly caused by working conditions. This includes physical and psychosocial health problems. A case of work-related health problem and illness does not necessarily refer to recognition by an authority and the related data shall be collected from existing population surveys such as the European Health Interview Survey (EHIS) or other social surveys."

The definition of OD reflects the sovereignty of MS in relation to their national policies which is acknowledged in the OD Recommendation. However because Recommendation was introduced before the Regulation, the Recommendation does not mention the Regulation. It is important that the Community statistics Regulation is explicitly supported by any adaptation of the OD Recommendation and forms the basis for OD statistics in future.

1.3 Recommendation 2003/670/EC

It should be noted at this stage that the Recommendation is an unusual hybrid; the "Recitals" which explain the reasons for the Recommendation mostly concentrate on prevention of ODs, whereas the detailed recommendations in Article 1 tend to concentrate on compensation for ODs. Compensation issues and social security provisions more generally are not within the responsibilities of the ACSH, nor are they covered by the Community Strategy. Social security and occupational safety and health matters are subject to different voting regimes. Nevertheless there are

considerable synergies between compensation and prevention matters and it is important that the Recommendation deals with both domains. Another unusual aspect of the Recommendation is that, in relation to prevention, no reference is made to the Framework Directive, nor any of the directives made under it despite these forming the bedrock of the Community approach to prevention, and any revision of the Recommendation needs to build in stronger and more explicit links to the prevention mainstream.

Article 1 of the Recommendation covers a number of topics, which gave the structure to the reports from each country, and formed the basis for this project report:

1. Recognition
introduce into their national laws, regulations or administrative provisions concerning ODs liable for compensation and subject to prevention measures, the European schedule (Annex I)

2. Compensation
Introduce into their national laws etc the right of a worker to compensation in respect of occupational diseases in cases where the ailment (not listed in Annex I) can be proved to be occupational in origin and nature (particularly if listed in Annex II)

3. Prevention
develop and improve effective preventive measures (which involve all players) for Annex I occupational diseases as well as exchange information, experience and good practice via the European Agency for Safety and Health at Work

4. Target setting
formulate quantified targets for the reduction of the rates of recognised occupational illnesses (in particular those included in Annex I)

5. Recording and Reporting
ensure that all cases of occupational diseases (Annex 1) are recorded and reported (statistically) allowing information on the causative factor, the medical diagnosis and the sex of the patient to be available

6. Epidemiology
introduce an information system on the epidemiology of the suspected diseases

(Annex II) and any other disease of an occupational nature

7. Research

promote research on ailments linked to an occupational activity (in particular Annex II ailments) and the disorders of a psychosocial nature related to work

8. Diagnosis

ensure that documents to aid the diagnosis of occupational diseases included in the national schedules are disseminated widely, taking account of the Commission's notices for the diagnosis of occupational diseases

9. Statistics

provide statistical and epidemiological data on occupational diseases recognised at national level, in particular via the European Agency for Safety and Health at Work information network

10. Awareness raising

promote an active role for national healthcare systems in preventing occupational diseases, in particular by raising awareness among medical staff through improving knowledge and diagnosis

Article 2 explains that MS need not adopt the EU list (Annex I) literally; rather they "shall themselves determine the criteria for the recognition of each occupational disease in accordance with the national laws or practices in force". This means that the EU list is intended to protect against the same risks in all MS, but not to do this in the same way in all MS. In addition, each MS is recommended to make it possible to recognise those diseases, which are not yet in Annex I but fulfil similar criteria - especially those diseases listed in Annex II - and should include them in the national lists.

Annex I comprises 108 diseases, divided in five groups, according to their causative factors (groups 1, 4, 5: chemical exposure, exposure to germs and parasites, physical exposure) or according to the affected organs (groups 2, 3: skin, respiratory tract, most of which are also related to causative substances).

Annex II comprises 48 further diseases, like Annex I divided in the five groups; most of them (36) refer to causation by chemical exposure.

1.4 The EU context

The Framework Directive 89/391/EEC

The Framework Directive applies as much to health at work as it does to safety, and the "general principles of prevention" which form the core of the Directive are as relevant to the control of occupational diseases as they are to safety. Even though the Framework Directive is now 20 years old, it emphasises the importance of social factors and the working environment, and of health surveillance. It is a document whose approach has stood the test of time.

Since the Framework Directive came into force it has been followed by other health and disease-related directives, such as those dealing with asbestos, biological agents, chemical agents (and the associated Indicative Occupational Exposure Limit Values (IOELV) directives), and physical agents such as noise and vibration. In relation to many of the occupational diseases caused by chemical substances, it is on the lists of IOELVs that prevention policy is rightly focused, rather than on the lists associated with Recommendation 2003/670.

The Community strategy on health and safety at work

In its Communication COM (2007) 62 final of 21st February, 2007 ('Improving quality and productivity at work: Community strategy 2007-2012 on health and safety at work'), the Commission re-emphasised its recognition of the importance of occupational diseases and expressed its intention to continue its work in this area. The Commission indicated it would evaluate the measures taken in response to the Recommendation dealing with the European schedule of occupational diseases. The Commission concluded that occupational illness and accidents at work still are a heavy burden on both workers and employers in Europe. It also noted that progress in prevention and the reduction of occupational injuries and diseases remained uneven across different countries, sectors, companies and categories of workers. Moreover, changes in working life were leading to new occupational risks, while certain workplace illnesses were rising, including musculoskeletal diseases (back pain, joint injuries and repetitive strain injuries) and illnesses caused by psychological stress. There was still considerable room for improvement, even more so as the costs of accidents at work and work-related ill health do not fall equally on all players. The Strategy for 2007-2012 aims to achieve a sustained reduction of occupational accidents and diseases in the EU. A series of actions at European and national level support this aim. They cover:

1. Improving and simplifying existing legislation and enhancing its implementation in practice through non-binding instruments such as exchange of good practices, awareness-raising campaigns, and better information and training;
2. Defining and implementing national strategies adjusted to the specific context of each Member State. These strategies should target the sectors and companies most affected and fix national targets for reducing occupational accidents and illness;

3. Mainstreaming of health and safety at work in other national and European policy areas (education, public health, research) and finding new synergies;
4. Better identification and assessment of potential new risks through more research, exchange of knowledge and practical application of results.

The EU Parliament resolution

A recent Motion for a European Parliament Resolution on the mid-term review of the Community strategy 2007-2012 from the Committee on Employment and Social Affairs (A7-0409/2011) calls for stronger EU policy on chemical risks, prevention of occupational cancer and protection of reproductive capacity. It also calls for rapid legislation for protection of workers from the risks arising from electromagnetic fields.

When focussing on the collection of statistical data, it stresses the importance of gender and age-specific occupational diseases statistics, and of data on MSDs and work-related stress. It also calls on EU-OSHA to compile national indicators on exposure to cancers and review the knowledge on exposure of particularly vulnerable groups.

The Resolution addresses the gender issue in the domain of occupational diseases. Occupational Diseases have long been regarded as mainly a male problem. An ETUI-study examining a set of national and European data on the impact of work on health through the filter of a gender perspective, highlighted the scale of discrimination in this area and offered useful insights both for policy makers and research. The gender issue is more than just concern on work-related reproductive hazards. http://www.etui.org/Publications2/Reports/Women-and-occupational-diseases-in-the-European-Union

PROGRESS Programme

The EU Social Agenda formulates various objectives in the area of employment, social affairs and equal opportunities. The PROGRESS programme supports Member States' efforts to create more and better jobs and to build a more cohesive society. One of its core concerns is the improvement of the working environment and working conditions, including health and safety at work and reconciling work and family life.

Despite the progress achieved, still much has to be done. Results e.g. from the latest European survey of working conditions show that many workers still perceive their jobs to be threatening their health or safety. Moreover, some categories of workers are still over-exposed to occupational risks (young workers, workers whose jobs are insecure, older workers and migrant workers). Certain sectors are still particularly dangerous (construction/civil engineering, agriculture, fishing, transport, health care and social services). In addition, the nature of occupational hazards is changing as a consequence of innovation, the emergence of new risk factors (e.g. violence at work) and the transformation of work patterns (more fragmented working life patterns).

Diseases that have a huge impact on life expectancy like silicosis and mesothelioma have acted worldwide as a trigger for prevention and collective compensation for the victims and their spouses. Since 1962 EU Member States have been expected to

take into account a European schedule of occupational diseases. The European Commission has been working for many years in this field to encourage - in particular - preventive measures and to promote national frameworks that allow for successful compensation claims.

1.5 Information notices on occupational diseases, a guide to diagnosis

Agreed criteria for diagnosing occupational diseases will help in ensuring consistency in clinical decisions, and contribute to management of individual cases and prevention of disease in occupationally-exposed groups. The European Commission (EC) produced its first schedule of occupational diseases in 1962. Other agencies and organisations in different countries also have their lists of occupational diseases, although guidance on recognising such diseases is less readily available. To fulfil this need, the EC produced a document in 1963 titled 'Medical particulars on diseases recorded in the European schedule of occupational diseases.' This was updated in 1994 by a working group of EU experts, resulting in the publication of 'Information notices on diagnosis of occupational diseases.' A revision of the 1994 document was commissioned ten years later. The current document 'Criteria for the diagnosis of occupational diseases' is a result of the efforts of a new EU expert working group. The group included several experts who worked on the 1994 document and new members from different EU countries. In addition, observers representing workers and employers were invited. Any implications that the conclusions of the group might have for workers' rights to compensation as per the systems applicable in each case and/or system were felt to be outside the group's remit.

A diagnosis of an occupational disease has implications for prevention, health care, and actions for workplaces, industry, worker representatives and for the individual and his/her treating physician. This updated document is intended as a guide and a source of information for clinicians, occupational health practitioners, hygienists, scientists, social partners, national authorities, and other health professionals with a responsibility and/or interest in the diagnosis of occupational diseases. New information appearing after availability of this document should be taken into account, and kept under periodic review.

This document contains information on diseases listed in Annex I of the European Schedule of Occupational Diseases and presents them in the order in which they are listed in the schedule.

1.6 Objectives of the project

The project reported here includes various elements of all these policy areas. The study aims to assess the current situation in relation to occupational disease systems

in EU Member States and EFTA/EEA countries. The ***main objectives of the study*** are:

- to describe the degree to which Commission Recommendation 2003/670/EC, its Annexes and associated documents (Diagnostic criteria guidance) have encouraged national systems to tackle occupational disease problems;
- to clarify the processes of decision-making in Member States for inclusion of occupational diseases into national lists, including the role of various stakeholders (government, social partners, scientific community) and the criteria and procedures applied;
- to gain insight into opinions and suggestions of relevant national stakeholders (e.g. social partners, social insurances, epidemiological and statistical experts). These evaluations may be relevant as to the content, structure and implementation of the EU system (Recommendations), current national systems and their implementation, etc.;
- to describe "good practices" in the prevention of occupational diseases, including analysis as to cost benefit aspects (provided that "national" information is sufficiently available and valid);
- To present and discuss a series of options on how the 'occupational diseases system' as currently run by the EC, could evolve and why.

A review of the project outcomes against the first four objectives is provided in Chapter 8 and against the fifth objective in chapter 9. Recommendations for change are noted throughout the report and these are summarised in the second part of Chapter 9, which concludes with a list of the most important recommendations.

1.7 Methodology and sources

The project comprised ***three stages*****:**

- a preparatory stage, including literature review as well as the development of templates and instructions for national experts;
- data collection and the composition of reports by national experts;
- in depth analysis, workshop, synthesis and reporting.

In the light of the variations in organisational and legal infrastructures as well as available documentation across countries, the data collection and analysis was based on various sources:

a. Desk research, literature review (including internet) etc. from comparative sources or EU institutions sources (e.g. EU-OSHA);

b. National reports based on literature and interviews, provided by national experts, co-ordinated by GVG;

c. Documentation, email contacts or (telephone) interviews with experts in international organisations (ILO, WHO, ISSA), expert networks in the area of occupational diseases, experts from social partner associations and further stakeholder representatives;

d. Conference participation (e.g. "Tracing New Occupational Diseases" organised by the Modernet Network (April 2011, Amsterdam).

The preparatory stage

The preparatory stage firstly included an up-to-date literature review, leading to an overview of the situation as to "the state of the art" in occupational disease policies, and developments in the EU and other countries included in the study. It also included a description of stakeholders' viewpoints and actions and plans of international institutions (ILO, ISSA, WHO), social partner organisations at EU level, and other comparable sources.

This stage also comprised the elaboration of a clear conceptual framework and the development of tools (instructions and reporting templates), building up the network of experts, etc.

National reports

From the beginning of the study it was clear that multi-source information would be needed to obtain a valid picture of the OD systems and situation in the countries covered. It was noted that in many EU countries the documentation on occupational diseases and related policy is mainly available in the national language and the staff of the involved institutions are not always proficient in English (or French or German). Consequently, a part of the research was carried out by independent national experts, who collected available literature and made additional interviews. The national reports provided by the experts were structured "working documents" made according to guidelines provided by the research team and using multiple sources:

- national documentation, policy papers, guidelines, etc., both official and "grey literature", both national and from international bodies in as far as referring to their country (e.g. Eiro, ILO, European Agency);
- statistics and data from monitoring systems, publications on (potential) good practices on prevention of occupational diseases, including underlying (cost/benefit and other) data;
- telephone or face to face interviews and email correspondence for those aspects where documentation was incomplete, or insights into prevailing opinions and positions were required (evaluations).

National experts prepared a (draft) national report (according to the guidelines and template for the national report); including analyses, evaluations, conclusions and relevant appendices and an overview of data sources/informants used. The project team carried out quality control tasks and provided feedback on the structure, contents and editorial aspects of the draft report. Occasionally additional data collection and revisions were needed.

Analysis

As soon as the national reports had been accepted for the purpose of reaching a better overview of the different aspects in 31 different countries, comparative tables were prepared. They covered all 10 topics of the Recommendation and comprised the basic material for the researchers/authors to analyse the outcomes and prepare the chapters included in this report. These analyses included:

- a comparative analysis of the current position in relation to the 10 domains of EC Recommendation;
- specific analyses of selected topics, such as:
    - inclusion criteria, acknowledgement procedures and decision-making processes for inclusion of occupational diseases into national lists, role of suspected occupational diseases, etc.;
    - stakeholder evaluations of the EU Recommendation, national lists of occupational diseases and priorities in the national OD policy area;
    - good practice on prevention of occupational diseases, including cost/benefit aspects (when available);
    - priority given to new emerging risks in the work place;
    - analysis of possible options on further developments in the occupational disease field, in relation to the topics of the EU Recommendation.

Initial findings of the comparative overviews were presented at a workshop with experts from EC, EU-OSHA and from other institutions as well as the researchers involved in writing the final report. The workshop also devoted time to the discussion of a paper (prepared on the basis of the national reports and the literature review) with draft options on further actions in the 10 topics of the Recommendation.

Limitations of the study

Despite extended guidelines for national reporters and feedback from the research teams, it should be noted that the national reports provided by national experts varied as to scope and depth. A number of factors influenced this variation, such as:

- research activities on ODs;
- the availability of information on ODs and OD-policy (e.g. on under-reporting or good practices in prevention);
- the openness and willingness of representatives of stakeholders' organisations to speak about their positions and evaluations.

One of the consequences of these variations is that in some countries more activity is ongoing than can be reported here, but at the same time the information gathered in other countries may be a little unbalanced.

The position of the national experts might have caused some 'information bias': although selection of national reporters was aimed at independent experts in the field, this was not always possible. In some countries the national experts had an affiliation

with the Labour Inspectorate or with Institutes dealing with the compensation of occupational diseases which might have influenced their view.

1.8 Structure of the report

The backgrounds, objectives and methodology of the study are described in Chapter 1.

Chapter 2 provides an overview of the main developments in the 10 topics of the Recommendation.

In Chapter 3 the decision-making process for the introduction of occupational diseases into national lists is described.

An analysis of the content of the national lists of occupational diseases is provided in Chapter 4.

In Chapter 5 the views of stakeholders in the 10 domains of the Recommendation is described.

Chapter 6 describes a number of good practice examples in the field of occupational disease prevention.

In Chapter 7 the issue of new work-related hazards and identifying possible new work-related diseases is addressed.

Chapter 8 provides an analysis of the Recommendation and the conclusions of this study.

In Chapter 9 options for the evolution of the occupational diseases system are described and policy recommendations summarised.

In the annexes the National reports with their annexes; comparative tables; literature review; questionnaire; the list of experts taking part in the project; and several other relevant project documents are provided.

2 Developments in the areas covered by Recommendation 2003/670/EC

2.1 Introduction

This chapter provides an overview of the developments in the areas covered by the Recommendation. The Recommendation covers 10 aspects relating to occupational diseases, as varied as recognition, compensation, prevention, target setting, reporting and recording, epidemiology, research, diagnosis, statistics and awareness-raising.

The development of a European list of occupational diseases has three main objectives:

- an improved knowledge of the subject at the European level (collection and comparability of data);
- the reinforcement of risk prevention: the Member States are invited to define quantified targets in order to reduce the rate of such diseases;
- aid for affected workers, who will be more easily able to prove the link between their occupation and their condition, and claim compensation.

An overview is provided of how each of these various recommendations have been adopted by the 29 countries covered by this study. It was drawn up on the basis of the answers to the questionnaire sent by each of these countries. The purpose of this questionnaire was to get concise information on the current situation regarding each aspect of the recommendation in each country while emphasising the changes which have taken place since the introduction of the Recommendation in 2003 so as to try and measure their impact.

2.2 Developments regarding recognition of ODs

The Commission recommends […] that the Member States introduce as soon as possible into their national laws, regulations or administrative provisions concerning scientifically recognised occupational diseases liable for compensation and subject to preventive measures, the European schedule in Annex I.

Classification of national lists of occupational diseases in the 29 countries

Nearly all the countries covered by this study (26 out of 29: AT, BE, BG, CY, CZ, DK, EE, FI, FR, DE, GR, HU, IE, IT, LV, LT, MT, NO, PL, PT, RO, SK, SI, ES, CH, UK) have a list of occupational diseases. These lists are established for the purposes of

recognition and compensation, i.e. they specify the diseases entitled to compensation and depending on the country in question, entail a more or less strong presumption of work-related origin. In some countries, the same list can also be used as a basis for a statistical reference system, or a reporting system.

The degree of exhaustiveness of the lists varies depending on the country. There can be a short list of substances supplemented by a few precisely specified diseases (e.g. Switzerland), or else a list of diseases together with compulsory or indicative criteria for recognition (as in France, Italy, Spain and Portugal). Again regarding the form of the list, diseases liable to be recognised as work-related can be described with varying precision.

In many countries, the national list is similar in structure to Annex 1 of the European list.

Apart from these differences of form, there are of course differences of content, since the national lists reflect countries' decisions to cover particular diseases through occupational disease insurance. These differences between lists, and their degree of similarity to the European list of occupational diseases, are discussed in chapter 4 of this report.

Changes in the last decade and imminent changes in the field of recognition

Numerous changes have been made in the content of the national lists since 2003. Only the Cypriot list (referring to its 1980 list of occupational diseases entitled to compensation and not its list for reporting purposes) and the Norwegian, Romanian and Swiss lists have not been changed since this date.

Note that, since 2003, only the United Kingdom has removed items from its national list (seven diseases caused by chemical agents and one condition).

While some countries have modified their national lists in relatively minor ways (AT, BE, FR, GR, DE, IE, PL, SK, UK), others have made significant changes in their lists. Many of the latter have not merely added newly recognised diseases but have adopted a new list of occupational diseases: Bulgaria in 2008, the Czech Republic in 2011, Denmark in 2005, Estonia in 2005, Hungary in 2007, Italy in 2008, Latvia in 2007, Lithuania in 2006, Malta in 2010, Portugal in 2007, Slovenia in 2003 and Spain in 2006. Cyprus, for its part, adopted a new list in 2007, but only for reporting purposes and not for recognition.

Some of the countries mentioned above (BG, CZ, EE, HU, IT) took advantage of this overhaul to bring their list into line with the European list (in both its structure and content), or even to transpose the European list into their national legislation more or less as is. In this, the European list was a genuine aid tool; however, the impact of the Recommendation should be viewed in perspective here, because the adoption of the European list does not go hand-in-hand, in all the countries in question, with the effectiveness of the reporting/ recognition/ compensation system.

Recognition of new ODs

The newly recognised occupational diseases include mainly:

Diseases caused by asbestos dust: malignant tumour of the pericardium caused by asbestos (Austria in 2006), pleural mesothelioma (Greece in 2006), lung cancer caused by interaction of asbestos dust and polycyclic aromatic hydrocarbons (Germany in 2008) and cancer of the larynx following the inhalation of asbestos dust (the Czech Republic in 2011).

Musculoskeletal disorders: tendinitis (Belgium, not yet formally included), carpal tunnel syndrome (Finland and Ireland in 2003), lateral epicondylitis (Ireland in 2003), osteoarthritis of the knee (Germany in 2008) and two diseases of the peripheral nervous system caused by working methods, not specified (Poland in 2009);

Cancers: lung cancer caused by quartz dust (Finland in 2003), cancer of the nasopharynx caused by formaldehyde (France in 2009), lung cancer caused by polycyclic aromatic hydrocarbons (Germany in 2008), neoplastic diseases induced by known occupational chemical carcinogens that are not in the list (Slovakia in 2003), lung cancer in subjects with silicosis (the Czech Republic in 2011), and lung cancer as a consequence of passive smoking (Denmark in 2005).

Moreover, numerous countries have modified the criteria for recognition of diseases already registered on their national list of occupational diseases, either to broaden those criteria (e.g. AT for nose cancer, BE and UK for lung cancers caused by asbestos, DK for 18 occupational diseases such as musculoskeletal disorders, back disorders and hearing disorders), or to designate certain diseases more precisely (e.g. BE for lumbar spine disorders, FR for periarticular (shoulder) conditions. These changes of criteria have only very rarely been restrictive (e.g. CZ, limitation of the criterion of recognition for pleural hyalinosis). Finally, other changes have been merely technical adjustments, for example a change in the methods/tools for assessment of particular diseases (e.g. FI for work-related asthma in workers exposed to moulds in water-damaged buildings, PL for hearing injuries caused by noise, CH for leukaemia and lymphomas caused by benzene).

Imminent changes

Two countries will probably soon amend significantly their lists of occupational diseases: Finland is examining the possibility of including several newly recognised occupational diseases (in particular cancer of the sinus caused by wood dust and chronic obstructive pulmonary diseases of non-smokers), and Greece plans to incorporate the European list in its national legislation, and create a complementary recognition system which has been in planning since 2008.

Norway has been discussing since 2008 the inclusion in its list of certain MSDs (limited to the upper limb, shoulder and knee), post-traumatic stress disorders (currently recognised as occupational injuries) and birth defects attributed to occupational exposure.

Lastly, Switzerland is considering the registration of several new substances on its national list which mainly consists of a list of harmful substances such as acrylates, aliphatic amines, disinfectants (alcohols, cresols, aldehydes, biguanides and quaternary ammonium compounds), and synthetic cooling lubricants.

2.3 Developments regarding compensation of ODs

The Commission recommends […] that the Member States take steps to introduce into their national laws, regulations or administrative provisions the right of a worker to compensation in respect of occupational diseases if the worker is suffering from an ailment which is not listed in Annex I but which can be proved to be occupational in origin and nature, particularly if the ailment is listed in Annex II.

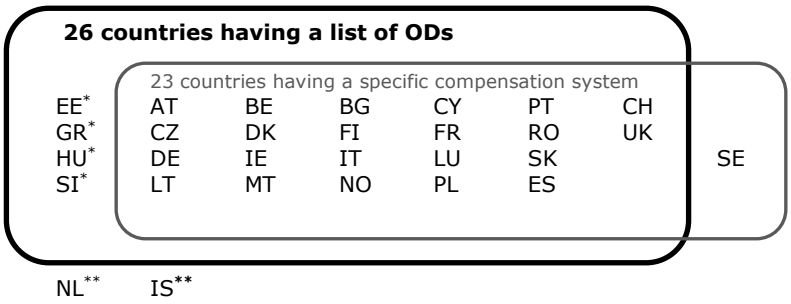
An occupational disease is above all a disease. The temporary or permanent consequences of this disease for the worker's ability to work are accordingly compensated in all the countries, but this compensation can be covered by different insurance systems: illness/disability or specific insurance for occupational diseases (and occupational injuries). In some countries, it is also possible to take legal action against the employer to get compensation for an occupational disease; this possibility is used in countries such as UK and Ireland, but in other countries it is used only in the case of a very serious fault or intentional fault.

Systems for recognition/compensation of occupational diseases and specific compensation systems

As mentioned in section 2.2, nearly all the countries covered by this study (26 out of 29) have a list of occupational diseases. SE, NL, IS do not need a list because SE has only a proof system, while NL and IS legally consider occupational diseases in the same way as any other disease. Of these countries having a list, only half (AT, BE, BG, DK, FI, FR, DE, IE, IT, LV, NO, PT, CH) also have a complementary system or proof system, by which it is possible to recognise the work-related origin of a disease that does not appear on the national list. This system is by nature more restrictive than the list system because the onus of proof lies with the victim and not the insurance organisation. Spain, for its part, has a de facto complementary system because occupational diseases not appearing on the national list can be recognised as accident at work.

While almost all the countries have a **list** of occupational diseases, not all have a **specific compensation system** for these diseases (23 out of 29). By a "specific compensation system" we mean a system which gives benefits different from those given for a "common" disease. In these 23 countries, benefits are often more generous: benefits in cash can be higher; the way of calculating the amount of the pension (in a case of permanent injury) is more favourable to the victim; and other benefits such as rehabilitation can be offered. In the six countries that do not have a specific system of compensation (EE, GR, HU, IS, NL, SI), occupational diseases - and also accidents at work - do not come under separate insurance arrangements. Diseases and a temporary loss of ability to work come under the health/sickness insurance regime, while disability and death are covered by the relevant pension/death insurance provisions. In other states, such as the UK, additional general benefits are available which cover everyone affected by sickness or disability.

The complex pattern of national systems is illustrated in the diagram below:



* these 4 countries have a list of ODs just for recognition and recording (no specific benefits for the victim)
** no list, no specific compensation system

There is great heterogeneity among the 23 specific systems for compensation of occupational diseases. The management methods of the insurance organisations (public/private, territorial/sector-based organisation), the extent of the insurance coverage (existence or not of separate regimes for self-employed workers, farmers, public-sector employees, etc.), the extent of the range of benefits (compensation solely for the consequences of the occupational disease or also benefits related to rehabilitation/adaptation of the work station, etc.), the nature and level of benefits for compensation in kind and in cash, the possibility or not of supplementing the compensation provided for by law with damages resulting from civil liability proceedings against the employer: all these variables make any classification difficult.

Changes in the last decade in the compensation systems (in particular regarding benefits)

Note that changes relating to the content of the list, i.e. to the diseases liable to be recognised as work-related and therefore giving entitlement to compensation were dealt with in section 2.2.

Since 2003, the systems of compensation for occupational diseases (specific or not) have changed little. No change is noted in 17 countries (BG, CY, CZ, DE, EE, FI, GR, HU, IS, IE, MT, NL, NO, RO, SI, CH, UK).

When changes have occurred, they are generally minor. They can be classified as follows:

- Changes directly related to benefits:
  - changes in the rules for calculating benefits in Poland, Portugal and Slovakia;
  - changes in the level of benefits: setting of limits on reimbursement of medical treatments in Latvia, rules for re-assessment of permanent disability over time in Portugal;
  - changes in the scope of benefits: vaccinations in Belgium, innovations regarding the rehabilitation of victims in Portugal;

- changes in the tax treatment of benefits: in France, daily benefits compensating for a temporary loss of ability to work following an occupational injury or disease are now liable to income tax;
- creation of an associated benefit: in France, the recognition of an occupational disease (or occupational injury) with a permanent disability rate ≥10% now gives entitlement (on certain conditions) to early retirement; this innovation is intended as compensation for painful working conditions.

- Changes more generally related to occupational disease insurance:
  - Extension of the scope of insurance: complications and the delayed effects of an occupational disease are covered in the same way as an occupational disease in Lithuania, and insurance has been extended to self-employed workers in Spain;
  - changes targeted on a specific issue: improved support to asbestos victims in Austria;
  - institutional changes relating to insurance management in Denmark, Latvia and Sweden;
  - in France, easier access to the complementary system of recognition (the minimum permanent disability rate giving entitlement to the examination of an off-list disease has been lowered from 66% to 25%);
  - establishment of a rule of non-cumulation of a pension for permanent disability and an old age pension in Latvia;
  - establishment of a complementary recognition system in Ireland and Bulgaria.

Lastly, even though it was just prior to the 2003 Recommendation, the reform of the Italian system of compensation for occupational injuries and diseases which came into force in 2002, combined with a major extension of the list of occupational diseases in 2008, deserves mention because it has resulted in the system of recognition and compensation for occupational diseases in Italy being significantly changed.

Imminent changes in the compensation systems

Five countries are currently working on changes of varying importance in their systems of compensation for occupational diseases.

In Finland, the legislation relating to occupational injury and disease insurance will be reformed soon, but the current basic principles will remain.

In France, the stakeholders have for several years been considering a change from the current flat-rate system of compensation to a system in which physiological damage and loss of ability to perform the original work would be assessed separately. This discussion is still topical, and a working group is due to be formed at the end of 2011. In Germany, a debate of the same nature has taken place during the last decade: a reform proposal aiming at replacing the "abstract assessment of damage"

(pension calculated according to the income of the victim and to the severity of the OD effects) by a "precise assessment of damage" (separate compensation of the damage to physical integrity and to loss of ability to perform the original work) was discussed, but did not result in a consensus among the social partners and the political decision-makers. Subsequently, the proposals have been prepared which maintain the principle of "abstract damage assessment" but modifying it by decreasing the abstractly calculated pension and increasing by means of increments only in case of income loss.

In Iceland, where no specific system for compensation of occupational diseases exists, an Act of 2007 provides that these should be covered in the same way as occupational injuries. This provision has not yet been incorporated in the regulations through the creation of a list of occupational diseases entitled to compensation.

Lastly, in the United Kingdom the rules around presuming occupational causation of diseases and how the severity of the effects of disablement are assessed within the state compensation system are under discussion.

2.4 Developments regarding prevention

The Commission recommends […] that the Member States develop and improve effective preventive measures for the occupational diseases mentioned in the European schedule in Annex I, actively involving all players and, where appropriate, exchanging information, experience and best practice via the European Agency for Safety and Health at Work;

In accordance with the European Commission's Recommendation, the great majority of countries covered by this study, (19 out of 29), have established a policy for the prevention of risks that could cause an occupational disease, as listed in Annex I to the Recommendation, and 22 have set themselves risk prevention priorities.

In 15 countries, priority is given to the prevention of musculoskeletal disorders.

The other risks recurring most frequently among occupational risk prevention priorities are:

- exposure to hazardous substances (chemical or biological products) in 11 countries;
- exposure to noise in nine countries;
- respiratory allergies and asbestos exposure, in five countries; and, finally,
- skin diseases in five countries.

Some countries, moreover, have prevention priorities other than those mentioned above, covering, for example, exposure to vibrations (DK, UK), or again to fumes and dust (GR, UK).

The prevention of new risks also exists in many countries, targeting in particular psychosocial risks (stress, burn-out, group bullying, violence, etc.) in 11 countries, or nanotechnologies in five countries.

Other countries also mentioned more general approaches to occupational risk prevention, such as the correct use of personal protective equipment (BE, BG, EE) and the importance of helping SMEs establish risk prevention policies (HU, IE). The promotion of health and well-being at work is also mentioned (GR, IE, SI, UK). In Germany, one of the priorities is also to improve the organisation of prevention in the companies.

The table below summarises the 22 countries mentioned, giving an overall view of the current risk prevention priorities in each of these countries. Only the main national prevention priorities for ODs are reported here. This table is not intended to list all the preventive actions in each country.

Table 1: Risk prevention priorities in the 22 countries

Which ODs or risks get priority in prevention?										
	MSDs	**Noise**	**Dangerous substances**	**Respiratory Allergies**	**Skin diseases**	**Asbestos**	**Psychosocial factors**	**Nanos**	**Others**	**Focus on a specific sector**
AT				x	x				Vaccination (hepatitis B)	Bakeries
BE	x		x				x	x	Adapting individual protective devices	
CY	x	x		x	x					Manufacture of food products and beverages Bakeries
CZ							x			
DK	x	x	x				x		Vibrations	
EE	x	x	x				x		Indoor climate of kitchens Tools and manual handling of loads in kitchens	Kitchens Metal works Entertainment enterprises Boiler-houses Car repair shops
FI	x			x						
FR	x		x				x	x		
DE	x	X	X	X	x	X	x	x	Work-related health hazards (ageing, shift work, lack of exercise, etc.)	
EL	x	x	x			x			Metal fumes Lead	Recycling companies, Cleaning services Construction Furniture industry
HU	x		x				x		Increased load of workers due to global warming	

	MSDs	Noise	Dangerous substances	Respiratory Allergies	Skin diseases	Asbestos	Psychosocial factors	Nanos	Others	Focus on a specific sector
IS	x					x	x			Construction
IE			x							
IT	x	x	x							Industrial sector
LT								x		
NL	x	x	x				x		Physical stress	Sectorial agreements
NO	x	x	x				x	x	Green jobs	
PL	x			x	x				Voice disorders	
PT	x	x	x				x			Local public administrations Temporary work sector Construction
SI						x				
CH						x		x		
UK	x	x	x	x	x	x	x		Exposure to silica and other substances Dusts and fumes Vibration, Grain handling	Construction Agriculture Woodworking Foundry work
Total	15	9	11	5	5	5	11	5		

Further information on the implementation of these prevention priorities is given in chapter 6 of this report which presents good practice examples.

2.5 Developments regarding target setting

The Commission recommends […] that the Member States draw up quantified national objectives with a view to reducing the rates of recognised occupational illnesses, in particular those included in the European schedule in Annex I.

The request of the European Recommendation that Member States establish quantified national objectives aimed at reducing rates of recognised illnesses is

problematic, because it could be interpreted as contrary to the need - widely accepted in Europe - to combat the under-reporting (and hence under-recognition) of occupational diseases.

Several countries have complied strictly with the European Recommendation, setting themselves the goal of reducing the number of occupational diseases, but the number of reported occupational diseases has increased (FI, IS, IT).

Other countries report that setting quantitative targets for the reduction of occupational diseases does not make sense, as for example, the big national campaigns organised in Germany on specific hazards (i. e. skin diseases, musculoskeletal disorders) first led to an increase in notifications of suspected occupational diseases, which were in some cases recognised and compensated. The measurable success of such campaigns does not mean the reduction in number of diseases on a short-term basis, but an increase in notices on entitlement to benefits and a generally improved level of information - as well as an increased awareness of the problems and workers acting in a more health-conscious way. Only if progress is measured over a longer time period will this result in a decrease in the number of occupational diseases. Moreover, improved prevention and improved health-consciousness of the persons concerned can only have a favourable effect on the many diseases which are due to long-term exposures.

Only Switzerland has noted a general decline in occupational diseases in recent years, and this decline seems to be continuing. Slovakia has achieved its objective of reducing musculoskeletal disorders in the mining sector.

Other countries have instead set themselves the goal of reducing the number of people exposed to certain risks, or reducing absenteeism due to certain occupational diseases. These objectives are sometimes quantified (DK, FI, FR, IC, IT, SK, CH, UK), but not always (DE, GR, HU, PL). Over the last few years the UK has largely moved away from quantitative targets towards an array of "destination goals" which include a number of leading indicators, and has developed an approach to measuring progress which uses a "suite" of measures..

The main occupational diseases or risks covered by these objectives, whether quantified or not, are:

- musculoskeletal disorders (DK, FR, DE, IS, SK, GR, HU);
- hazardous substances (FR, IT, GR, HU, PL);
- noise (DK, GR, HU);
- asbestos (FR, GR);
- respiratory and skin allergies (PL, DE);
- psychosocial disorders (DE, DK, IS, HU, PL);
- work-related health hazards (DE).

The following table summarises the quantified objectives for the eight concerned countries.

Table 2: Quantified objectives for the 8 concerned countries

Country	Quantified target
Denmark	Reduction of absenteeism by : - 10% for psychosocial working environment, - 15% for noise causing hearing injury - 10% for MSD problems.
Finland	Reduction of number of all ODs by 40% between 2002-2010, and by 10% between 2010-2020. Not reached, increase was seen.
France	- Stabilise frequency index of MSDs in sectors which are especially affected. - Move 100,000 workers away from carcinogenic, mutagenic and reprotoxic agents (2009-2012). - Improve handling asbestos risk in very small enterprises. Identification of the recurrent contracting authorities for maintenance operations in presence of asbestos.
Iceland	Reduction of mental and musculoskeletal disorders by 5% between 2009-2012. Was not reached (cut on national funding).
Italy	- Identification of "lost ODs", - Occupational cancers. Not reached: Number of ODs are increasing.
Slovakia	Reduction of MSD's in mining industry. Targets reached.
Switzerland	General: reduction of number of ODs. Targets reached : Total number of ODs decreases continuously
UK	(These have been superseded by more direction-based objectives) - Reduction of lost working days/p. 100,000 workers from work-related injury/ill health by 30%. - Reduction of incidence rate of cases of work-related ill health by 20%. - 20% reduction ill health to members of the public caused by work activity by 20% - Reduction of 15% in the overall illness incidence rate (2001-2009).

2.6 Developments regarding recording and reporting of occupational diseases

The Commission recommends […] that the Member States ensure that all cases of occupational diseases are reported and progressively make their statistics on occupational diseases compatible with the European schedule in Annex I, in accordance with the work being done on the system of harmonising European statistics on occupational diseases, so that information on the causative agent or factor, the medical diagnosis and the sex of the patient is available for each case of occupational disease.

Reporting systems

Nearly all the countries have a national system for recording occupational diseases, the efficiency of which varies from country to country.

There is a great diversity of recording systems, in their management (insurance organisation, Ministry, other ad hoc organisation), in the criteria used as a basis for reporting cases, and in their objectives (compensation, statistics, risk prevention).

There are two types of systems for reporting occupational diseases: those based on claims for recognition and compensation administered by the national social security systems, and those based on an independent system.

Most of the countries come under the first system (some exclusively: AT, PT), other countries come under the second, and in a number of countries there are several registers of both types (e.g. FR, IT, UK).

The system of reporting for compensation purposes is usually characterised by the limitation of cases solely to the diseases included on the national lists, which is more restrictive than a system of reporting of work-related diseases and thus does not allow the warning role that could be expected of a register of occupational diseases to be fulfilled. On the other hand, this type of register often contains uniform data for the whole country and data that is more reliable and precise in certain respects because it reflects claims for compensation.

The reporting systems outside the insurance organisations are by nature more open to the emergence of new diseases, and therefore correspond better to risk prevention and the needs of epidemiology/research; but in some cases its management faces problems of financial and personnel resources.

The reporting procedure is generally based on doctors, who are legally required to report all cases of diseases which could be related to an occupational exposure (AT, DK, DE, EE, FI, FR, HU, IS, IT, NL, NO, PL, PT, RO or only industrial doctors in BE and SI). In some cases, it is the employers who report

cases of occupational diseases affecting their workers (SE, CH) for compensation purposes.

It should be stressed that Germany is the only country to note that the health insurance funds too play an important role in reporting cases of occupational diseases. This way of reporting works satisfactorily, all the more so because these funds have de facto a financial interest that the reported cases be taken over by the accident insurance organisation instead of by the health/sickness insurance organisation.

Depending on the country, the recipients of the reports are the insurance organisations, but also the Labour Inspectorate or other organisations possessing the register of occupational diseases.

The diversity of the registers from one country to another, and even within a given country, makes it hard to compare the statistics between countries.

The problem of under-reporting

With the exception of Bulgaria, all the countries recognise (BE, CY, CZ, DK, EE, FI, FR, GR, HU, IS, IT, LV, LT, MT, NO, RO, SI, SK, ES, SE, CH, UK) or do not rule out (AT, DE, IE, PL, PT) a problem of under-reporting of occupational diseases.

The main diseases affected by under-reporting are apparently cancers in Denmark, diseases with long latency periods in Austria, multiple-cause diseases (cancers, asthma, carpal tunnel syndrome, skin diseases) in Finland, the Czech Republic and Italy, and MSD in Hungary. All diseases are considered liable to be affected in Sweden, France (especially among pensioners), Latvia (especially in certain industries), the United Kingdom, Switzerland and Slovenia (except for asbestos-related diseases for these three countries).

Regarding the scale of the under-reporting, it seems that very few countries have carried out research on the subject: DK on cancers, FI on cancers, asthma, skin diseases and carpal tunnel syndrome, and FR in a public report every three years. Under-reporting is estimated at 50-90% in Hungary, 50% in Latvia, almost 100% in Slovenia, and is considered significant in Sweden and Iceland. Only an estimated 3% of occupational disorders are reported in Norway, and in the United Kingdom the Trades Union Congress believe that only 1/8th of victims eligible for the compensation system have reported their disease or taken legal action to obtain reparation.

The causes identified as responsible for this phenomenon are numerous. Some are common to several countries.

The lack of knowledge and information among doctors (especially general practitioners) regarding the concept of occupational diseases is one of the explanations most frequently given (AT, DE, EE, FR, HU, IT, LT, MT, NO). Occupational physicians are not spared this criticism (SK, SI). This shortcoming is also observed among victims and the general public (RO).

Doctors are sometimes criticised for taking little interest in the reporting procedure (HU, MT, NL, SK for industrial doctors). Some refrain from reporting when the chances of seeing the case recognised as an occupational disease by the insurance organisation performing recognition are small or non-existent (BE). This raises the problem of countries in which the reporting system is based on an approach of recognition and compensation, de facto excluding any reporting of little-known off-list diseases/exposures and making the register of occupational diseases relatively insensitive and of little value for the purposes of prevention and detection of emerging risks.

Many countries deplore procedures that are excessively onerous and complicated for those involved in reporting (NL, RO, EE, HU, LT, MT, NO). Some systems are considered unsuitable because they involve too many steps and players and thus generate off-putting administrative and bureaucratic red tape. This problem exists especially in those countries in which there are several systems for reporting occupational diseases, for purposes of compensation and for purposes of risk prevention, or even specific systems for certain risks.

Pressure from employers is also complained of in several countries, which is revealed by the lack of independence of industrial doctors (HU, RO, SI) and by the victim's fear of the consequences of a report for their job (EE, HU, IT, LT, MT). The same employer, when he is involved in the reporting system and when the insurance system does not completely protect him from legal proceedings, may himself fear the legal consequences of such a report (HU, IT, MT, NL).

Other problems, specific to one or a few countries, are raised:

The lack of a specific system of compensation for occupational diseases (IS) or its relative unattractiveness (PL) are not incentives for the victim to report.

Some countries regret the lack of involvement of the healthcare systems in the reporting procedures (regional entities in Spain and hospitals in Austria).

Spain also mentions a conflict of interest generated by the very nature of the occupational risk insurance system there: the mutuas (insurance organisations), which are the first link in the reporting system, are in competition with one another. The pressure exerted by client firms regarding the number of reports means that the mutuas are not motivated to report suspected cases of occupational diseases.

Finally, the scale of the phenomenon of undeclared work in a country has a major influence on the applicability of the reporting system (LV).

Positive incentives for reporting

The incentives observed in the various countries are very diverse, but some represent genuine good practices that could be adopted in other countries.

In several countries, a fee is paid to the general practitioner for each case of a disease potentially of work-related origin that is reported to the appropriate organisation: €5.81 in Austria, €15.22 in Germany, €20 in Norway, and €27 in

Italy and Denmark. This practice is currently under discussion in the Czech Republic.

Several countries (e.g. BE, CY, DK, MT) feel that having online reporting procedures encourages reporting. Information technology is also used very well in Denmark where, since 2007, the data appearing in the Register of Cancers and the content of the insurance organisation's database are electronically exchanged and cross-checked in order to detect persons suffering from a form of cancer potentially of work-related origin who might not have considered reporting it to the insurance organisation.

The insurance organisation is also proactive in other countries, providing procedures for identifying potential victims of occupational diseases: in France with an experiment in the detection of cases of bladder cancer followed by support for the potential victim in their reporting procedure; in Austria where the free AUVAsicher programme consists of regular visits to SMEs by industrial doctors of the insurance organisation; in Switzerland and in Germany where there is a widespread system of post-occupational monitoring of workers exposed in the past to certain carcinogenic substances.

Numerous awareness raising and information initiatives intended for doctors should be mentioned: reminding them of their duty to report (FI); incentives for certain hospitals to enquire systematically into occupational exposures in the case of specific diseases (FR); newsletter sent to doctors and the various organisations that could be concerned in detection/reporting, and increased initial training for doctors in occupational diseases (PT); improved information for doctors via factsheets available on the website of the insurance and risk prevention organisation (CH), etc.

Some countries judge that certain features of their national reporting system encourage reporting: the existence of a generous system of compensation (compared with compensation for common diseases and disability) is considered a factor encouraging reporting (CZ, DE, DK). The fact that the reporting system is based mainly on the doctor prevents victims from waiving their right to report their case due to fear of the complexity of the procedure or fear for their job (AT). Finally, it is in the financial interest of the insurance organisation itself to encourage reporting to the extent that its budget is based on the number of cases reported/recognised (DK).

Measures of a coercive nature apparently exist in a few countries: a fine is planned for doctors who fail in their obligation of reporting all cases of diseases potentially of work-related origin (DK, EE, IT), and in Austria in 1995, a hospital which had not reported a case was told to pay compensation to the victim.

Changes in the recording & reporting systems since 2003

During the past decade many countries have taken initiatives to ensure better information for doctors and the general public regarding occupational diseases and the need to report them.

On the other hand, few technical changes have occurred in reporting systems.

Some reporting procedures have changed to take into account new factors: the introduction of unlisted occupation-related diseases in the legislation (BE), EODS methodology (EE).

The lists of diseases to be reported have been redefined in their content and their referencing (ICD-10 or European list) in several countries: CY in 2007, IT in 2009. Spain also completely reformed its reporting system in 2007 by computerising its system, precisely defining new procedures and establishing different systems for different types of diseases (CEPROSS for occupational diseases on the Spanish list used as a basis for recognition, and PANOTRATSS for non-traumatising diseases caused by work, i.e. all off-list diseases).

Finally, Romania has only recently established a system for reporting occupational diseases (2009), and some countries have created an electronic reporting system (DK in 2010, HU and ES in 2007, underway in Norway). In Sweden, the reporting system for compensation purposes will be revised in the coming years.

2.7 Developments regarding epidemiology

The Commission recommends […] that the Member States introduce a system for the collection of information or data concerning the epidemiology of the diseases listed in Annex II and any other disease of an occupational nature.

The potential response of a country to this recommendation depends of on the state of art already achieved in the particular country. The responses in the national reports were therefore clustered in the five groups given in Table 3. In about half of the 29 countries no system for the collection of information or data concerning the epidemiology of the diseases listed in Annex II or any other disease of an occupational nature exists at present. However, as recommendation 6 does not detail how such a system should be introduced, national reporters had difficulties answering this question.

Table 3: Answers to recommendation 6

Reaction to recommendation 6 "Epidemiology"	Country
An developed system is in place, and the recommendation does not apply	NL, DK, FIN, FR, IE, NO, SE, UK
An already existing system has been further improved	CH, DE, HU, IT
A new system was set up	
A system is in preparation	CY
No action was taken – even though there is good reason for action	AT, BE, BG, CZ, EE, GR, LT, LV, MT, PL, SK, SI, ES
Answer inconclusive	IS, RO

Available sources on epidemiology

There are multiple sources for epidemiological data concerning workplace related health risks. They can be categorised as following:

a. Standardised data on suspected and recognised OD
b. Other standardised data from other social security sources (health, retirement, unemployment insurance) - SoSe
c. Data from workplace-related screenings and physical examinations
d. Data from exposure assessments
e. Workplace-related general surveys on exposure and health risks (Questionnaire data)
f. Epidemiological studies

Table 4: Sources of epidemiological data used in the different countries

Country	A) Standardised data on suspected and recognised OD	B) Other standardised data from other social security sources	C) Data from workplace related screenings and physical examinations	D) Data from exposure assessments	E) Workplace related general surveys on exposure and health risks	F) Epidemiologic studies
AT	+	+	-	-	-	(+)
BG	+	+	+	+	-	+
BE	+	?	?	+	?	+
CY	+	?	-	-	-	-
CZ	+	-	-	-	-	-
DE	+	+	(+)	+	+	+
DK	+	+	+	+	+	+
ES	+	-	-	-	-	(+)
EE						
FI	+	+	+	+	+	+
FR	+	+	+	+	+	+
GR	-	-	-	-	-	+
HU	+	?	-	-	+	+
IE	+	+	+	+	+	+
IT	+	?	+	+	+	+
LV	+	-	-	-	-	+
LT	+	-	-	-	-	+
MT	+	-	-	-	-	+
NL	+	+	+	+	+	+
NO	+	+	+	+	+	+
PL	+	?	?	?	?	+
PT	(+)	+	+	+	+	+
RO	+	+	-	-	-	-
SE	+	+	+	+	+	+
SI	+	+	-	+ (Asbestos)	-	+
SK	-	-	-	-	-	-
UK	+	+	+	+	+	+

Possible answers: yes +, partially (+), no -, ? unclear

A minority of countries (n=9) use the whole armoury of potential sources of epidemiological data concerning workplace-related health risks. Several reports mentioned that screenings and physical examinations of workers are performed frequently, but that the results of these examinations are not used for epidemiological research. Even using the different sources of epidemiological data does not necessarily mean that there is a systematic approach as can be seen by the comment of a national reporter: "No formal system really exists."

Strengths and weaknesses of the epidemiological systems

Countries using a system based on epidemiologic studies appreciated the in-depth analysis possible with these studies. However, as a disadvantage the lack of a general overview given by this approach was mentioned. In countries mainly

relying on OD statistics, underreporting and a lack of qualification of the diagnosing physicians were mentioned most often as weaknesses.

2.8 Developments regarding research

The Commission recommends […] that the Member States promote research in the field of ailments linked to an occupational activity, in particular the ailments listed in Annex II and the disorders of a psychosocial nature related to work.

Current research priorities regarding occupational diseases background

Research priorities can only be set if a sufficient research infrastructure is available. This is not the case in all countries. Countries lacking this infrastructure are: e.g. CZ, EE. No explicit research priorities were stated for 12 countries. For most other countries it was not very clear from the national reports whether actual research was considered a priority or whether indeed research priorities were decided by formulating a plan for a certain research period. Only for France and Norway was it apparent that the research priorities were defined by a plan. Norway seems to be the country with the most focussed research strategies in OSH, as three areas for research are defined for a 10 year period and a clear priority is given. In most countries no national plan for OSH research priorities seems to exist in order to promote research. MSD, dermatitis and psycho-social working conditions are three research areas with priority in at least seven countries.

Table 5: Research priorities by countries*

Answer	Country
No, or unclear	AT, BG, CY, ES, EE, GR, IS, IE, LV, MT, PT, SK,
Yes	NL, BE, CH, (CZ), DK, FI, (HU), DE, IT, LT, NO, PL, RO, SI, SE, UK
Examples	
Mechanical risks and MSD	BE, NL, DK, EE, FI, FR, DE, NO, PL, SE
Noise	FR, HU
Radon exposed workers	DE, UK
Exposure to solar UV and skin cancer	CH, DE
Infectious diseases, biological risks	BE, NL, CH, HU, FR, HU, NO, CH, DE
Dermatitis	BE, CH, HU, FR, EE, DE, HU, SE, CH
Feasibility and application studies	CH, DE
Nanoparticles	(CZ), FR, PL, CH, DE
Nightshift work and health (cardiovascular, breast cancer)	DK, DE
Psychological, social and organisational working conditions	BE, DK, FR, DE, NO, SI, SE, UK
Ageing	FR, DE, SE
Risks to reproduction	FR, SE, UK
Biomonitoring	HU, DE
Chemical exposure	GR, FR, NO, PL , DE
Occupational cancers	FR, IT, DE
Waste products and recycling	FR, DE
Asbestos	LT, RO, SI, CH, DE
Effectiveness and efficiency of workplace prevention, OSH delivery	PL, SE, UK, DE
Migrant workers, unprotected workers (e.g. farmers)	PL, SI, DE
Return to work, rehabilitation	CH, DE
Fertility	UK, DE

() in the national plan but very limited research capacity

* It is emphasised that only the main national research priorities for ODs are reported here, and that this table is in no way intended to list all the research conducted in each country.

Research since 2003 on disorders of a psychosocial nature related to work

In 23 countries research on disorders of psychosocial nature related to work was newly developed or intensified after 2003. (AT, BE, CY, CH, DE, DK, ES, EE, FI, FR, HU, IS, IE, IT, LT, MT, NL, NO, PL, RO, SI, SE, UK). The national reports do not allow for quality and impact assessment of the research undertaken. In Finland research focuses on psycho-social factors which improve well-being at work. Therefore the focus is no longer only on health risks but also on health potential.

Research carried out in the field of emerging or new occupational risks

In about half of the countries research in the field of emerging or new occupational risks is carried out (AT, CH, DE, DK, EE, FI, FR, IT, LV, MT, NL, NO, PL, SE, UK).

Research on potential risks associated with nano-particles was most often mentioned (AT, CH, DE, FI, FR, IT, LV, NL, NO, PL, UK).

Nightshift and cancer as well as potential health risks caused by ionising radiation or electromagnetic fields were mentioned by three countries each. (DK, NL, DE) and (FR, IT, UK).

A supra-national network (MODERNET) for monitoring emerging occupational risks has been set up. This network is organised by the University of Manchester, the Finnish Institute of Occupational Health (FIOH), the University of Milan, the National Institute in Prague and the University of Grenoble together with the Netherlands Centre for Occupational Diseases, and now involves a number of other countries (see chapter 6.4 for more details).

Chapter 7 of this report is entirely devoted to new occupational risks.

2.9 Developments regarding diagnosis of occupational diseases

The Commission recommends […] that the Member States ensure that documents to assist in the diagnosis of occupational diseases included in their national schedules are disseminated widely, taking account in particular of the notices for the diagnosis of occupational diseases published by the Commission.

Quality of occupational disease diagnostic tools

In many countries, the main tools to aid the diagnosis of occupational diseases come from the insurance organisations (e.g. AT, DE, DK, FR, IT, CH).

These are mostly handbooks, guidelines and protocols for assessment which are useful above all to the experts of these organisations in the procedure for recognition of cases submitted by victims. They are sometimes made available to the public (and hence general practitioners and workers) via the insurance organisation's website, which theoretically allows a broad dissemination of knowledge (BE, FR, CH, DE). They may cover all the occupational diseases on the national list (FI, FR, IT, NO, UK) or else a few specific diseases (BE, DE, NL, RO, SI, SE, CH). These tools are regularly updated according to changes in the national systems of recognition of occupational diseases.

In some countries, the list of occupational diseases itself contains factors for the diagnosis of diseases entitled to compensation (e.g. BG, CZ, DK, FR, PT), or

there are scientific supplements to each particular listed OD edited by the advisory board of the labour Ministry (DE)

In addition to or in place of insurance-related diagnostic tools, other organisations can be the originators of such tools: societies of occupational medicine (CZ, LV, RO) or scientific expert groups of various medical sectors (DE), Ministries of Health or Social Affairs (CZ, EE, LT, RO), or national organisations specialised in occupational health (FI, HU, NL, PL, SE).

A few countries apparently do not have specific diagnostic tools (GR, IS, SE).

Finally, as the Recommendation encourages them to do, a significant number of countries use the expertise and experience of other European countries. This is the case for Cyprus, which uses the document produced by the German DGUV in 2007 entitled "Prophylaxis in occupational medicine - Guidelines for occupational medical examination", Latvia which uses various foreign materials such as the Danish criteria for occupational low back pain, or Estonia which supports an Estonian-Finnish Twinning programme which provides systematic training courses for industrial doctors.

Two countries are currently working on the drafting of national guidelines on the diagnostic criteria for occupational diseases: Cyprus and Spain.

Role of the EU "information notice on ODs"

Several countries use the document produced by the Commission in 2009 entitled "Information notices on occupational diseases: a guide to diagnosis" (CY, HU, MT where it is the only tool used, LV, NL).

Other countries emphasise that they do not use this guide as such, but that similar principles are followed in their own national tools (NO, UK); some countries admit that they do not know this document (FR).

2.10 Developments regarding statistics

The Commission recommends […] that the Member States forward to the Commission and make available to interested parties statistical and epidemiological data on occupational diseases recognised at national level, in particular via the information network set up by the European Agency for Safety and Health at Work.

It is important to mention the main development in the statistical background which has taken place since 2003; that is the coming into force in 2008 of Regulation (EC) no 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and

safety at work:http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:354:0070:0081:EN:PDF. This gives in Annex V the definitions on which Eurostat will build the statistical base:

"A case of ***occupational disease*** is defined as a case recognised by the national authorities responsible for recognition of occupational diseases. The data shall be collected for incident occupational diseases and deaths due to occupational disease.

Work-related health problems and illnesses are those health problems and illnesses which can be caused, worsened or jointly caused by working conditions. This includes physical and psychosocial health problems. A case of work-related health problem and illness does not necessarily refer to recognition by an authority and the related data shall be collected from existing population surveys such as the European Health Interview Survey (EHIS) or other social surveys."

The definition of OD reflects the sovereignty of MS in relation to their national policies which is acknowledged in the OD Recommendation Article 2. It is important that the Community statistics Regulation is explicitly supported by any adaptation of the OD Recommendation and forms the basis for OD statistics in future. It is unfortunate that the national reports seemed to indicate a low level of awareness of the regulation, when it could form the basis for better national and EU-wide statistics.

The national reports indicate that with only two exceptions (CY, MT) more or less reliable data of varying reliability on recognised ODs are available in every country. In some countries these data are available in the language of the country and not in one of the main languages of the EU. Data on claims for recognition/suspected OD by pathology are available in 14 countries.

Table 6: Statistics on recognised cases of occupational diseases in 2009

Country/ Issues	hearing Loss	Mesothe-lioma	Dermatoses	Asthma	Total of ODs	Number of (insured) workers
Austria (2009)	883	122	245	191	**1,848**	(AUVA): N= 3,204,737
Belgium (2010)	441	88	65	67	**1,440**	N= 2,400,000
Bulgaria (2009)	7	0	0	1	**116**	N=2,696,109
Cyprus (2009)	1	1	0	0	**3**	N (labour force) = 390,500
Czech Rep. (2009)	16	9	140	66	**1,236**	N= 5,000,000
Denmark (2010)*	1,153	87	1,696	Not documented	**5,169**	N (2009) = 2,831,100
Estonia (2010)	7	0	5	6	**104**	N (labour force)= 668,290 N (employees) = 570,000
Finland (2009)	1,119	55 (circa)	443 (circa)	148 (circa) Respiratory diseases	**3,057**	N= 2,460,000
France (2009)	1,048	586	Not documented	222 Work-related rhinitis/ asthma	**49,341**	(CNAMTS) N (employees of private sector) = 18,460,000
Germany (2009)	5,379	1,030	586/9,628**	508	**16,078/25,570 ****	(DGUV) N (employees of private and public sectors)= 38,500,000
Greece (2003-2009)	Not documented	Not documented	9 (Contact dermatitis)	2	**19**	(IKA-ETAM) N = 1,850,673
Hungary (2010)	34	4	15	0	**274**	N (employees in 2009): 2,660,713
Iceland (2009)	0	0	0	20	**4**	N= 167,000
Ireland (2009)	0	1	9	5	**23**	N= 2,578,000
Italy (2009)	2,636	875	372	137	**12,551**	INAIL N(Ind.&services)= 17,628,963
Latvia (2009)	306	1	10	48	**2,842**	N= 937,600
Lithuania (2010)	73	0	6	7	**390**	N=1,343,700
Malta	***Statistic only for work-related accidents but not for ODs (in 2009 there were 12 mesothelioma cases)***					
Netherlands (2009)	4,619 reported cases	193 compensated cases in 2010	189 reported cases	94 reported cases of Pulmonary and respiratory disorders	**9,856 reported ODs**	N (employed population in 2010)= 7,400,00
Norway (Labour & Welfare Administration Registry 2007)	347	Not documented	Not documented	Not documented	**914**	N (labour force) = 2,100,000
Poland (2009)	261	17	104	52	**3,146**	N= 14,037,200

Country/ Issues	hearing Loss	Mesothe-lioma	Dermatoses	Asthma	Total of ODs	Number of (insured) workers
Portugal (2009)	327	1	76	64	**3,320**	N= 5,595,000
Romania	***Statistics only in Romanian***					
Slovakia	***Statistics only in Slovakian and need for permission from the National Health Information centre to access to the data***					
Slovenia (2010)	1	4	10	10	**44**	N= 818,975
Spain (2009)	1,415	16	1,136	283	**16,850**	N= 15,680,700
Sweden	***No statistics attached***					
Switzerland (2009)	1,021	84	660	120	**3,590**	N = 3,867,440
United Kingdom (2009/2010)	210	1,900	70	130	**6,780**	N= 23,700,000

* Source : Eurogip

** The first number corresponds to the cases formally recognised as occupational diseases, the second one corresponds to the cases whose occupational origin has been confirmed but for which all insurance criteria are not filled up; in this latter case, benefits in kind such as secondary (individual) prevention measures enabling the insured persons to prevent worsening are provided by the insurance organisation.

It is difficult to compare national statistics of occupational diseases for several reasons:

- the figures of occupational diseases do not represent a common reality; they may be recognised cases (most statistics in the above table) or reported cases (in the countries where there is no specific insurance against accidents at work and occupational diseases);
- the problem of under-reporting of occupational diseases varies from country to country. This can be seen, for an occupational disease whose recognition conditions are almost identical in all countries, by relating the number of recognised cases to the insured population. In fact, once the differences between recognition systems have been eliminated, it is the reporting practices (knowledge of general practitioners and medical specialists, who actually reports the disease, efficiency of the reporting system, motivation of the victim for the recognition procedure, etc.) which make the biggest difference between the countries;
- the recognition systems (and particularly the content of national lists and the recognition criteria relating to the diagnosis, to the intensity of exposure, to the job done, etc.) differ markedly from one country to another.
- the nature of a country's economic activities (agriculture, industry, services) can also affect the number and the typology of the occupational

diseases reported and recognised. There may also be philosophical or cultural differences underlying and affecting the figures.

Noting a low number of recognised cases of an occupational disease in a given country is neither a sign of the absence of such disease nor the proof of successful prevention. In the same way, the well-established detection systems and information systems of the general public often explain the great numbers of reported cases/recognised cases in some countries.

The comparative exercise is nevertheless still useful to derive the big trends of the future (eventual drop in the number of mesothelioma cases, increase in the number of RSI, etc.). And provided this comparison is accompanied with warnings and the necessary explanations, it is possible to deduce what are the most frequent diseases in Europe or simply to diagnose a functional problem of the reporting system in some countries.

The comparative exercise remains also useful for some diseases whose recognition conditions are relatively similar in all the national OD compensation systems (for example, mesothelioma caused by asbestos dust).

Finally, if we wish to compare and argue on the basis of convincing data, we should not only get recognition data (that is to say the cases recognised by the insurance organisation) but also data concerning claims for recognition. We should also look more widely at figures deriving from national reporting systems of work-related diseases when they exist (that is to say the cases suspected to be related to work without any consideration of the insurance criteria applied in the country); from cancer registries; from surveys of the labour force; from academic research and analysis, and from medical specialists. In this way, by assembling a suite of statistics, we are more likely to gain a clearer perception of the numbers, rates and trends in occupational diseases and work-related illnesses, and be able to identify the priorities for action.

2.11 Developments regarding awareness raising

The Commission recommends […] that the Member States promote an active role for national healthcare systems in preventing occupational diseases, in particular by raising awareness among medical staff with a view to improving knowledge and diagnosis of these illnesses.

In some countries, national health care systems seem to be the only possible detector of occupational diseases (mostly without having any access to exposure data), while in other countries occupational medical surveillance systems – which are a separate institution - take care of this task and play an important role in

prevention as well. Even in the latter case, it is very useful to raise the awareness of the national health care systems.

In the period 2003-2010, most countries (n=20) undertook or planned (n=2) awareness raising activities. Training of OSH specialists (n=14), qualification of primary care providers (n=9) and issuing of practical guidance on OD (n=10) were the most often mentioned activities. Awareness raising campaigns at the state level were carried out by five countries. Facilitation of access to OSH advice was undertaken in one country (AT) for small enterprises or business. This might be considered as an innovative approach in working areas under-served with OSH-specialists.

Family doctors need to have OM training in one country (LT) in order to perform health check-ups. This too, might be considered as a powerful tool to improve awareness of primary care providers.

Table 7: Measures taken in the period 2003-2010 to promote an active role for national healthcare systems in preventing occupational diseases by countries

Answer	Country
None or answer unclear	CZ, DK, IT, MT; PT, RO,
Activities planned	BE, GR
Yes	AT, BG, CH, CY, DE, EE, FI, FR, HU, IS, IE, LV, LT, NL, NO, PL, SK, SI, SE, UK
Examples	
Medical education of students	DB, DE, NL, NO, SE
Training for OSH specialists	BE, BG, CH, DE, EE, FI, FR, HU, IE, LV, NL, SI, SE, UK
Training course: diagnostics of OD for primary care providers (family doctors, pneumologists)	CH, DE, EE, FI, FR, HU, LV, LT, NO, SE
Quick check for Infection prevention and hygiene for pregnant HCW	NL
Practical guidance on occupational diseases for general practitioners, doctors conducting preventive medical examinations of workers or doctors Occupational Medicine Services	BE, BG, CH, CY, DE, FR, HU; IS, SE, UK
Online information for doctors	FR, HU
Asbestos exposure register	AT
Free access to OSH advice for small companies	AT, DE
TV spot, mass media	GR, PL
Awareness rising campaign	DE, LV, NO, PL, SE
Vaccination program	SK

2.12 Conclusions

It is hard to measure directly the impact of the Recommendation on the occupational disease systems of the various States. But the overview of the systems currently existing shows a great variety of compensation systems, and even more of practices for reporting and recording occupational diseases. However, this heterogeneity is found less often in risk prevention priorities.

The overview of recent and forthcoming changes shows great European vitality in the area of occupational diseases, seen especially in the States that joined the European Union recently. For many of these countries, the lists of occupational diseases in annexes 1 and 2 of the Recommendation proved to be useful reference tools. On the other hand, it appears that in those countries in which the system of prevention, registration and compensation for occupational diseases is long-standing, the changes observed do not converge toward a common European system.

Whatever the maturity and efficiency of their occupational disease systems, all the States are faced with the same problems of, for example, under-reporting, the need to raise awareness among all the stakeholders of the national healthcare systems, multiple cause diseases, and the difficulty of detecting new risks.

3 Occupational disease list revisions: the decision process

3.1 Introduction

There are three different kinds of decision-making processes which are relevant to the recognition of occupational diseases:

1. Evaluation of the suspicion of a disease or a group of diseases being occupationally induced and inclusion of the disease/diseases in the national list;
2. Determination in individual cases of whether they meet the list criteria and are eligible for benefits or other support;
3. Recognition in individual cases of a suspicion of a causal relationship between diseases not listed in the national list of occupational diseases and work- related influences. (Only in countries with a mixed system consisting of a list and a complementary clause, see section 4.4)

This chapter covers only the decision-making process for inclusion of a disease in the national lists of the participating countries. Decisions are based on a number of inputs, including research and consultation, but do not take account of the circumstances of any individual cases. The aim of this process is the acceptance or rejection of the causal relationship between a disease and work-related influences and therefore its inclusion in the national list of occupational diseases. This generally is not an easy process. Mr Jukka Takala, until recently Director of EU-OSHA, stated in a meeting on the update of the ILO List of Occupational Diseases: "The updating of the list of occupational diseases had been an arduous task because of the complexity of the medical, technical, administrative and legal aspects, and it had not been easy to propose a universal solution."

Here we give an overview of:

- who is responsible for starting the decision-making process, as defined by evaluation of the suspicion of a disease or a group of diseases being occupationally induced;
- the admission of the disease/diseases into the national list
- who is in charge for the decision making process
- which bodies are involved in the process
- experiences from selected countries.

Finally we formulate some recommendations.

3.2 The list revision process

Of the 29 countries, 26 have a national list of occupational diseases. The UK and Cyprus have two lists, one for compensation and one for prevention, although UK statistics arising from the prevention list are no longer published because of their unreliability. The Netherlands, Iceland and Sweden do not have a national list of OD. They have therefore been excluded here. In SE, individual cases in which there is a suspicion of an occupational disease are decided on the basis of general criteria. In NL and IS OD are not recognised and compensated in a workers compensation system (see sections 2.3 and 4.1).

Table 3.1 summarises the various stages of the process for inclusion of new diseases in the national lists of occupational diseases.

Table 3.1 Overview of actors involved in revision of national lists of ODs

Stages	Actors involved	Remarks
Who takes the initiative?	Government: 16 countries, and - Scientific committee: 3 (BE, DE, IT) - Other committees/boards (various stakeholders): 5 (BG, DK, PT, SK, UK)	FR: qualified body or person PL: trade unions, professional bodies
Responsibility for process	Government: all countries, except: - social insurance: 1 (BE) - committee/board (various stakeholders): 2 (DK, SK,)	No info: LT, MT, NO
Consultation of scientific committee /advisors?	All countries except: - CY, MT, NO: comparison with EU list - Mixed working groups (e.g. SK)	No info: BG, ES, HU, LT, PT
Consultation of social partners?	All countries	
Who decides on inclusion of new ODs?	Government: all countries except: - social insurance: 1 (BE) - committee/board (various stakeholders): 2 (DK, SK)	CH: government and parliament DE: government and "Bundesrat"

The process for the inclusion of new ODs in the national lists involves various stakeholders. Despite this, we noted many commonalities:

a. In most countries the government takes the initiative to study the need for revision and the basis for inclusion of new ODs in the lists. This initiative

mostly lies with the ministry of social affairs (or a similar ministry), and in a few countries the health ministry also has an initiating role. In a minority of countries other bodies may start the process: mixed boards or committees with representatives of social partners, social insurance organisations, or medical experts.

b. In many countries, public and scientific discussions, and the experience of the labour inspectorates, the occupational physicians, the workers compensation institutions and the social partners all contribute to the formal initiatives of the government or the boards/committees.

c. In the large majority of countries it is the government too that coordinates the process. In those few countries where a multi-party board initiates the process this body also has the lead and coordination.

d. In almost all countries scientific experts are requested to give comments (on the body of knowledge) and suggestions, and to provide scientific information.

e. In all countries social partners are consulted on proposals for the inclusion of new ODs; often they are also members of boards or committees that are involved in the earlier stages of the process.

f. The decision on including a new occupational disease in the list is government matter. Only in three countries does a multi-stakeholder board or the social insurance body decide on inclusion.

The main differences between the countries seem to relate to the nature of the process:

- In some countries (eg DE) the key aspect seems to be a scientific discussion around whether the legal criteria are fulfilled by the scientific evidence, with consultation of the social partners and political parties afterwards.
- In some other countries (eg FR) the key aspect seems to be the political discussion between the social partners and the government, on the basis of scientific advice.

Some problems seem to concern the personal, financial and organisational means and capacities of the boards/committees and organisations concerned with research in the field of new occupational diseases. The work in the boards/committees often seems to be unpaid, the members working full-time in other occupations, such as medical and epidemiological scientists in universities, occupational physicians, labour inspectors, and social insurance experts. So the time and effort spent on the business of the boards/committees is short, and support from full-time staff of the boards/committees is unusual and limited. As a

result, the process of inclusion of new occupational diseases takes a long time, as mentioned in some national reports.

Another problem concerns the question of which experts (which specialisations) should be members or advisors of the boards/committees. The main disciplines in all countries, as far as the national reports reveal, are occupational medicine and epidemiology. In some countries, discussion is taking place about whether other medical and scientific disciplines should be more involved in this process, such as experts in diagnosis (eg. radiologists, pathologists) or specialists in lung or musculoskeletal problems. The best approach is likely to involve good cooperation between all relevant disciplines. In some countries, members and specialists are nominated to boards/committees by the social partners and this can bring greater independence and robustness to the decision-making process.

3.3 Variations in criteria, similarities in procedures

Some lists have a long history, with entries made decades ago. Although the criteria may have changed, the entries have often not been modified. Therefore in some lists the diseases differ in the degree of certainty of their causal relationship. Removal or modification of an entry can fail because there is opposition from one or more stakeholders. Some lists reflect the history of the recognition and compensation of occupational diseases in a country. On the other hand some Member States have adopted the EU lists and have only limited experience of their own in developing criteria for causal relationships.

The information provided in the National Reports indicates that there is no consistent definition of a causal relationship across all participating countries. In some countries a two-fold risk is associated with the existence of a causal relationship; some Member States accept lower attributable risks as causal. For example, the two-fold rule in Germany is applied only for those diseases which can be caused by individual or occupational factors, such as lung cancers, and which are widespread in the population. Although in rare diseases the epidemiological proof of two-fold risk is not possible they can be recognised as OD and included in the list if there is a clear link (aetiopathology) between exposure and disease.

The criteria for the acceptance of a causal relationship seem to be legally fixed in most of the participating countries in more or less vague legal formulations. In most Member States (e.g. FR, DE), the permanent working committees seem to have relatively wide scope to decide which new occupational disease should be proposed for inclusion in the list. However in the UK, the permanent scientific committee publishes its criteria and all its reviews, including those which have led to the removal of occupational diseases from the list. The position in DE is similar. For more than 20 years the scientific advisory board has published its

scientific recommendations for new occupational diseases, with in-depth scientific discussion of exposure and diagnostic criteria and the general causative link between exposure and disease, so everyone can read the reasons which led the board to its proposal, and which conditions for recognition in single cases are proposed by the board. No key criteria are published for the EU-list. Most new Member States have adopted the EU-list in their own legal framework for recognition of occupational diseases.

The role of diagnostic techniques is stressed in some countries. The certainty of the diagnosis of a disease in some cases depends of the availability of certain diagnostic tools. For example, if there are typical pleural plaques with calcification it is easy to attribute pulmonary fibrosis to asbestos exposure. Without computer tomography it is sometimes difficult to detect pleural plaques. In some countries, for example in DE, more and more medical scientific guidelines have been developed in the fields of exposure assessment, diagnostics, treatment and also in the field of medical assessment of the causation of occupational diseases.

3.4 Conclusions and recommendations

There are many similarities and also some differences in the decision-making processes for inclusion of a new occupational disease in the national lists in participating countries. Only a few countries have scientific commissions *permanently* involved in the decision-making process, and only a few countries have no national list. In most countries the lists are the basis for compensation, and this is clearly indicated in France, UK, Germany and other Member States.

Only a few countries seem to provide the public with published reports about the decision-making process. On the other hand a lot of experience is available in different scientific and governmental institutes, as well as in NGOs. Moreover a lot of cooperative work is carried out in Member States as part of the decision-making process.

To help improve comparability of the lists of ODs across countries and to improve efficiency in the national decision-making processes, it is suggested that an EU Scientific Committee on Occupational Diseases (SCOD) be created – comparable with SCOEL (on exposure limits). This committee could compile and evaluate the basic documentation used in Member States for their decisions on inclusion or exclusion of (suspected) ODs in national lists, which would contribute to the harmonisation of criteria for inclusion of diseases in national lists. Such a group could also identify the diseases which needed further evaluation; consider how such an evaluation should be carried out; agree what research was needed to provide the necessary evidence; and develop coordination mechanisms so that research and evaluation was efficiently carried out (and could encourage it to be carried out). Unless this is done, there is a possibility on one hand that

research resource will be wasted, and on the other that compensation (and prevention) will be neglected.

A weaker way to improve coordination would be to introduce an obligation that Member States exchange information on the criteria and evidence base used in the national procedures for evaluating new ODs for inclusion into the national lists. This could be done by creating a "database of scientific criteria", which could also include references to underlying materials used for the decision to include or exclude a disease in the national lists. By making the empirical basis and background of decisions in countries more transparent and accessible, existing cross-national variations in the scientific background information and in decisions on new ODs could be reduced. Similarly, greater understanding of workers' rights to compensation for the same ODs in different countries could also be stimulated this way. However, without an organisation such as SCOD, suggested above, the coordination role would fall directly on the EC.

Both of these coordination proposals should also help alleviate the problems faced by posted or migrant workers trying to secure compensation for a disease contracted in a country which is not their home state.

It may also be possible to bring closer together the EU and ILO approaches, and it is worth remembering that EU level experts participate actively in the ILO review process and so would be able to provide input to these recommendations in a cost-efficient way.

A topic that will have to be addressed in such a committee or a databank is the recognition of multiple-causes diseases. Multiple-causality, its measurement and ways to deal with it when revising lists are topics which many countries struggle with in the face of changing employment patterns and production technology. These diseases do not easily fit the current patterns of compensation and it may be necessary to develop new recognition concepts if these illnesses/diseases are to be dealt with effectively by national systems.

4 Analysis of the national lists and the EU list

4.1 Introduction: National lists as components of different national legal OD systems

It should be remembered, when comparing the EU list with the national lists and the national lists with each other, that the national lists are components of different national legal systems. The potential for harmonising the national lists depends on the characteristics of these different legal systems. Therefore an overview of the legal systems in the MS and other European countries is presented here. Not all national reports within this study have explicitly outlined the national legal systems, so the different systems existing in Europe will be characterised in a general way, and in addition examples of the systems in some specific European countries will be mentioned.

One of the most important differences relates to employers' liability to compensate OD. Compensation systems fall into two main groups, and within both of these groups there are some further differentiations:

- Countries where employers' liability provides all or part of workers' compensation:
    - No other compensation of OD is granted but through employers' liability, if need be, by third party insurance; no differences between OD and other diseases in relation to health care, rehabilitation and pensions granted by the social security system, prevention measures are regulated by the governmental labour inspectorate: IS, NL (in NL, OD compensation only for mesothelioma caused by asbestos).
    - Compensation through employers' liability and by workers compensation; health care and rehabilitation are dealt with in the same way as other diseases; pensions granted by the social security system; prevention measures are regulated by the governmental labour inspectorate: IE, NO, PL, UK
- Countries where employers' liability is taken over by workers compensation (the legal OD system):
    - Workers compensation only provides pensions. Treatment, care and rehabilitation are provided by the national health system or social health insurance. Prevention measures are regulated by the governmental labour inspectorate: SE.
    - Workers compensation provides treatment, care, rehabilitation and pensions. Prevention measures are primarily regulated by the governmental labour inspectorate: SK, ES.

- Workers compensation provides prevention and pensions. Treatment, care and rehabilitation are provided by social health insurance and additional prevention measures are regulated by the governmental labour inspectorate: BE, FR.
- Workers compensation provides for all aspects – prevention, treatment, care, rehabilitation, pensions – and additional prevention measures are regulated by the governmental labour inspectorate: DE, IT, PT.

4.2 Structure and content of the EU list

The Commission Recommendation of 19 September 2003 (2003/670/EC) comprises four parts:

- the "Recitals" section setting out 9 statements underpinning the recommendation;
- Article 1, which sets out 10 recommendations concerning the lists in Annexes I and II, and Articles 2 – 4 which add some accompanying rules);
- Annex I (EU list of OD) with 108 diseases or groups of diseases;
- Annex II (EU complementary list of OD suspected of being occupational in origin) with 48 diseases or groups of diseases.

In addition, the European Commission publication "Information notices on occupational diseases: a guide to diagnosis" (2009) gives diagnostic information on the diseases listed in Annex I.

The 10 recommendations form the framework for this project. This chapter examines the first and second, which ask MS "without prejudice to more favourable national laws or regulations" to:

1. introduce as soon as possible into their national laws, regulations or administrative provisions concerning scientifically recognised occupational diseases liable for compensation and subject to preventive measures, the European schedule in Annex I;
2. take steps to introduce into their national laws, regulations or administrative provisions the right of a worker to compensation in respect of occupational diseases if the worker is suffering from an ailment which is not listed in Annex I but which can be proved to be occupational in origin and nature, particularly if the ailment is listed in Annex II".

Article 2 explains that MS need not adopt the EU list (Annex I) literally; rather they "shall themselves determine the criteria for the recognition of each occupational disease in accordance with the national laws or practices in force". This means that the EU list is intended to protect against the same risks in all MS, but not to do this in the same way in all MS. In addition, each MS is recommended to make it possible to recognise those diseases, which are not yet

in Annex I but fulfil similar criteria - especially those diseases listed in Annex II - and should include them in the national lists.

Annex I comprises 108 diseases, divided in five groups, according to their causative factors (groups 1, 4, 5: chemical exposure, exposure to germs and parasites, physical exposure) or according to the affected organs (groups 2, 3: skin, respiratory tract, most of which are also related to causative substances).

Annex II comprises 48 further diseases, like Annex I divided in the five groups; most of them (36) refer to causation by chemical exposure.

- As both EU lists were intended to act as a framework for the legal regulations of MS, they include relatively open-worded descriptions of the diseases, which:
- only mention the causal factors, but not the kind of disease (eg nearly all those in group 1 – chemical effects);
- only mention the kind of disease, but not the specific causal factors (eg 506.45 carpal tunnel syndrome);
- mention both the kind of disease and the causal factors (eg nearly all those in group 3 – respiratory diseases).
- Neither Annex I nor II mention some diseases which are included in the national lists of some MS; important examples are:
- Some musculo-skeletal diseases like osteoarthritis of the knee (gonarthrosis) or the hip (coxarthrosis), spinal disc damage by handling heavy loads etc;
- diseases caused by work-related psycho-social factors.

The reasons may be found in the progress of scientific knowledge over the last 10 years as well as in different political positions concerning the compensation of work-related diseases. The Commission Recommendation took this in account, permitting more favourable legal regulations in the MS (see Art. 1, introductory sentence).

4.3 Recommendations of other international organisations: the ILO list of OD

The ILO regularly reviews its OD lists and the need for updating. In 2002 it published a booklet on notification and recording of occupational accidents and diseases and the ILO list of ODs. It aimed to create a way for regular updating of the lists in the light of changing technology and employment patterns, new substances and newly emerging health risks as well as improved diagnostic tools.

Currently the ILO organises expert meetings to identify new emerging risks, to consider the need of revision of the ILO list, and to identify diseases that might qualify for inclusion. A series of activities is carried out including sending out questionnaires to Member States; reviewing international scientific findings and

evidence bases; organising tripartite stakeholder consultations; and preparing proposals (recommendations) to the ILO board.

The ILO working group emphasised recently that there is the need to establish key criteria such as the strength of exposure-effect relationships and the magnitude of the risk factors for acceptance of a causal relation between a disease and an occupational influence.

A revision of the ILO list of Occupational Diseases was approved in 2010, see: http://www.ilo.org/safework/whatsnew/WCMS_124671/lang--en/index.htm and chapter 3 on the decision-making process.

The new list includes a range of internationally recognised occupational diseases, from illnesses caused by chemical, physical and biological agents to respiratory and skin diseases, musculoskeletal disorders and occupational cancer. Mental and behavioural disorders have been, for the first time, specifically included in the ILO list. The list also has open items in all the sections dealing with the aforementioned diseases. The open items allow for the recognition of the occupational origin of diseases not specified in the list if a link is established between exposure to risk factors arising from work activities and the disorders contracted by the worker.

There are some notable differences between the structure of the ILO list and the EU list of Occupational Diseases (see table 8):

- In the EU list a difference is made between the list of OD (Annex I) and the list of suspected OD's (Annex II) whereas the ILO takes all the OD aboard in one list;
- Musculo-skeletal disorders and mental or behavioural disorders (much debated in the EU) are in the structure of the ILO list of OD;
- The ILO list uses in every category of diseases a catch-all clause. For example, under the heading 2.4 "Mental and behavioural disorders", one disease is mentioned (2.4.1. "post-traumatic stress disorder"), followed by 2.4.2. "Other mental or behavioural disorders not mentioned in the preceding item where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the expo-sure to risk factors arising from work activities and the mental and behavioural disorder(s) contracted by the worker".

Table 8: The structure of the ILO list

ILO List of OD (incl. suspected OD)	
1.	ODs caused by occupational exposure to:
1.1	chemical agents
1.2	physical agents
1.3	biological agents
2.	ODs by target organ systems
2.1	respiratory
2.2	skin
2.3	musculo skeletal diseases
2.4	mental / behaviour
3.	occupational cancer
4.	other diseases

Both the EU and the ILO list have technical background papers with a description of the ODs and their medical and exposure criteria.

4.4 Character of the national lists

The project has identified four main types of national list systems among the countries covered by this study:

- no OD compensation system: no national list, no specific compensation of OD, compensation only by employers' liability: IS, NL (in NL OD compensation only for mesothelioma caused by asbestos);
- very open compensation system of OD without a national list: SE;
- mixed systems with a national list and in addition a complementary clause with some differentiation in detail: 13 countries. "Complementary clause" (or "open clause") means a legal regulation allowing recognition of those diseases "as" or "like" an OD which are not in the national list. The legal conditions for recognition under the complementary clauses differ between MS from restrictive conditions (eg DE) to relatively wide conditions (eg FR). In some countries (eg CH), the wide application of the complementary clause leads to occasional revisions of the list, for new knowledge about the link between exposure and diseases can be applied under the complementary clause. Compared to Annex I of the Commission Recommendation:
    - list with different structure and fewer diseases, but similar content: AT, IT;
    - list with similar structure and content (in some countries more listed OD): BE, EE, DE, LV, LT, SK;
    - list with different structure, but similar content (more listed OD): DK, FR, HU, PT, CH.

- closed systems with a national compensation list, no complementary clause reported, with some differentiation in detail: 13 countries. Compared to Annex I of the Commission Recommendation:
  - list with fewer diseases, but almost no application because reporting is not functioning: GR;
  - prevention list with structure and content very similar to the EU list (Annex I and II) ; compensation list with fewer diseases: CY;
  - list with different structure and fewer diseases: MT, NO;
  - list with similar structure and content: BG, CZ, PL, RO, SI (for SI, a complementary clause for occupational cancers is reported);
  - list with more or less different structure, but similar content (in some countries, more diseases): FI, IE, ES, UK.

4.5 Changes in the characters of national lists

Some "new" MS report significant changes in the characters of their national lists ("new lists"):

- BG (2008)
- CZ (2011)
- EE (2005)
- HU (2007)
- LV (2007)
- LT (2006)
- MT (2010)
- PL (2009)
- SK (2003 – only inclusion of some additional OD for approximation to the EU list)
- SI (2003).

They all report "great similarity to", "taking over in most part" or "almost exact copy of" the EU list, which seems to have been very helpful to new MS in the process of fulfilling the EU membership conditions in this field. Comparison of these new lists with the structure and content of the preceding lists has not been possible because the national reports do not give details of the older lists.

A few other MS also report notable changes in their lists and OD systems:

In DK, since 2005, the requirements for medical documentation of causality between working conditions and disease have been relaxed. For that reason, more diseases are now included in the list, including some which are not listed in the EU Recommendation or in other national lists. The list also now includes a guide giving detailed and specific requirements for the causative exposures.

Since 2008 OD compensation has been financed within 16 financially self-supporting trade groups according to the principle of pay-as-you-go.

In IT new lists for the industrial and the agricultural sectors were published in 2008. The new lists have improved the recognition process because the pathologies caused by certain chemical or physical agents have been specified – in the previous list there was instead only the generic indication "diseases due to ....". For five new OD introduced to the German list in 2008, a similar process took place to that in IT. The five additions indicate the specified disease, the causative agents and – as far as scientific knowledge makes it possible – the relevant causal dose-response relationship.

In ES, new lists adapted from Annex I and II of the EU list have been in force since 2006, in order to incorporate the EU list into Spanish legislation. The lists include 6 groups of OD – one more than EU list; the 6th group includes in particular a group of occupational cancers. Some diseases have been taken over from Annex II to the list, and some diseases not included in EU list have been included in the Spanish list.

In all countries which have a list there is a trend to include new OD in the lists but not to remove any OD from the lists. Only one MS, the UK, reports that seven OD and one condition have been removed from the list because they are no longer relevant (many are dealt with under the accident compensation provisions). The seven diseases caused by chemical agents were dropped in 2003, as follows: Poisoning by a nitro- or amino- or chloro-derivative of benzene, or of a homologue of benzene or poisoning by nitrochlorbenzene; poisoning by dinitrophenol or a homologue of dinitrophenol, or by the salts of such substances; poisoning by tetrachloroethane; poisoning by diethylene dioxide (dioxan); poisoning by nickel carbonyl; poisoning by oxides of nitrogen; and central nervous system dysfunction and associated gastro-intestinal disorders due to chloromethane (methyl chloride).

4.6 Structures of the occupational diseases in the national lists

As mentioned above, the diseases in the EU list are "open formulated". That is, they either indicate only the kind of disease, or only the kind of causative agent, or both – but not the criteria for causation such as dose-response relationships, or exposure duration. The national lists also vary in the way they describe diseases – from very open and general wording to very concrete and specific definitions. The main groups may be characterised as follows:

- The most open formulation compensates all diseases mainly caused by working conditions – without defining them in a list – like in SE;
- The lists of some countries unite groups of OD under general terms – the consequences are short lists with less specific diseases; a greater need for instructions on the application to work practices; and in part, no need

for a complementary clause. Examples are DE (in some parts), AT, NO, PL, RO, SK;

- The lists of many countries describe the particular diseases in a similar way to the EU list. Examples are BE, CZ, EE, DE (only the older diseases in the list), HU, LV, LT, SI;
- In the lists of some countries the diseases are described in more concrete and specific terms than in the EU list, especially by indicating particular working conditions, fields of occupation or dose-response relationships. The consequence is – in many countries – a legal presumption of causation, and – in most countries – the need for a complementary clause. Examples are BG, DK, FR, DE (only concerning the recent diseases), IE, IT, MT, PT, UK. In MT the new list does not contain occupational conditions as the old list.

Some countries report that the agents responsible for some diseases (especially chemical poisons) listed in the EU Recommendation are not included in the national lists because the poisoning occurs over a short time period. As a result, the damage is compensated as a work accident (examples are some acids - Nos. 104.01, 109.01, 113.02 of the EU list Annex I – and some chemicals like chlorine, bromine, iodine – Nos. 115.01, 115.02, 115.04). Some chemical agents listed in Annex II of the EU list may be covered by some countries in this way.

Furthermore, some countries report that some chemical irritants which are listed explicitly in the EU list Annex I (e.g. 1.1 Acrylonitrile, 103.02 Carbon oxychloride, 104.01 Hydrocyanic acid, 104.02 Cyanides, 109.01 Nitric acids, 109.02 Oxides of nitrogen, 109.03 Ammonia, 113.01 Oxides of sulphur, 113.02 Sulphuric acid, 115.01 Chlorine, 115.02 Bromine, 115.04 Iodine, some solvents, s. 121 and 123 Organic acids) are grouped together under a general description in the national lists (such as in the German list No. 4302 "Obstructive diseases of the respiratory tract by chemical irritants or agents with a toxic effect" and/or No. 5101 "Skin diseases" which means skin diseases caused by all allergic, irritant or toxic agents not included in another specific position in the list).

4.7 Content of the national lists

Most of the 26 countries which have a national list (three countries do not have a list) report that their lists cover about the same content as the EU list (Annex I), although the number of specific diseases in the national lists varies from 32 in RO to 141 in ES.

The different numbers are due to the different characteristics and structures of the lists (see above 4.4, 4.5) and to the different structures of the particular diseases or groups of diseases within the lists (see above 4.6).

Only a few countries report that their lists do not include a number of diseases in the EU list (AT, CY, FI, MT, NO, SI). It seems that in such countries with relatively small populations and limited fields of industrial production there is no need for the national lists to adopt all the diseases in the EU list.

Many countries report that their lists include more OD than the EU list (Annex I)

- in some countries since before 2003 and with no influence by the EU list;
- and in most countries since 2003 and with some possible influence by the EU list.

Most countries report that some of the diseases listed in the EU list Annex II have been introduced in the national lists, and some countries report that their national lists comprise also diseases not yet listed in the EU list Annex II.

It is not possible to give here a complete overview of all these diseases which are listed in the national lists in addition to the EU list Annex I, for within this study not all countries reported their lists in an English version. The following overview is based on the national lists as far as can be determined from the national reports.

There are great differences between European countries in the extent to which the diseases listed in Annex II of EU list are included in their national list:

- Only one country reports adopting all these diseases in its national list (LV);
- Many countries report that many of these diseases are included in their national lists (BE, DK, EE, FR, DE, PL, PT, RO, ES). IE, MT and UK seem to have done so too, by open formulations in some cases;
- Some countries do not include more than 6 – 8 of these diseases in their national lists (AT, CZ, LT);
- Some countries either do not include these diseases in their national list and/or have not reported on this aspect.

For the further development of OD policy in Europe it is very important to know about new OD in the national lists which are not yet included in the EU list. The main groups reported by some of the MS are as follows:

- musculo-skeletal disorders and other diseases caused by physical agents
  - degenerative disc diseases of the lumbar spine and (in some countries) of the cervical spine by lifting heavy loads etc. (BE, DK, FR, DE, HU, LT)
  - degenerative knee diseases (gonarthrosis) caused by lifting heavy loads, jumping, kneeling or other knee straining exposures (DK, DE, UK)
  - degenerative hip diseases (coxarthrosis) caused by lifting heavy loads in agricultural work (DK, RO, UK, discussed in DE)
  - chronic neck and shoulder diseases caused by repetitive work (DK)
  - "Beat hand" – "Hypothenar- and Thenar-Hammer-Syndrome" (UK, recommended for introduction in the list in DE)
  - general formulation in the list of RO: "Chronic arthrosis, periarthritis, stiloiditis, aseptical necrosis, osteocondylitis, bursitis, epicondylitis. Causes: systematic pressure on those articulations, overtension and

trauma, long-term work at low temperatures and humidity" (similar formulation in the list of PL)

- two general formulations in the list of HU (similar to SK) "diseases of bones, joints, muscles and tendons caused by excessive unilateral strain" and "diseases caused by ergonomic factors"
- thrombophlebitis of the veins of the lower limbs caused by long-term standing, and thrombophlebitis of the upper limbs caused by effort with large movements of the upper limbs (RO).

- skin diseases caused by UV radiation, with different formulations:
  - "Malignant skin tumours and preneoplasic lesions occurring after long-term occupational… UV radiation and others" (RO),
  - "Keratoconjunctivitis, pterygium, cataract, dermatitis (erythema, sunburn), photo-dermatitis, premalignant lesions of the skin (actinic keratosis, keratoacanthoma), malignant epithelioma and malignant skin melanoma" (PT); general formulation reported in the lists of HU, ES; conjunctivitis and keratitis of the eye; skin changes (photodermatitis, photocontactdermatitis) caused by UV radiation (FI) actually discussed as new OD and being compensated under the complementary clause in DE (only actinic keratosis, malignant epithelioma and in a few cases basalioma).
- conjunctivitis, keratitis and dermatitis caused by laser radiation (PT)
- diseases caused by electromagnetic radiation (IE, RO)
- tooth abrasion caused by work in air contaminated with grinding dust and/or quartz dust (DK, DE)
- diseases caused by unfavourable meteorological conditions (heat, cold), with different formulations, for example,
  - "Heat shock, heat collapse, heat cramps, caused by body overheating" (RO); open formulation in the list of EE: "other diseases caused by physical and physiological risk factors of the working environment"; similar in the list of SK and in NO "climatic diseases, cold-related or due to heat";
  - similar in PL: "diseases induced by high or low temperature of the environment

    1) heat stroke and its sequels

    2) heat exhaustion and its sequels

    3) frostbite"

    (It should be mentioned that damage caused by short time heat or cold exposure may be compensated in the other countries as work accidents.)
- specific lung diseases
  - lung diseases caused by Thomas dust (SK);

- emphysema in glass-blowers and brass-band players (SK);
- lung cancer caused by silicon dioxide when there is accompanying silicosis (CZ, DE, UK);
- lung cancer caused by synergistic exposure to asbestos and polycyclic aromatic hydrocarbons (DE);
- emphysema and chronic bronchitis caused by underground work in coal mining (EE open formulation, DE, HU, LV, LT, PL, PT, UK).

- diseases caused by specific chemical agents
  - diseases caused by para-tertiary-butylphenol (DE);
  - poisoning by chemical warfare agents (SK)
  - (it may be that these agents are covered in the lists of other countries under specific terms, or may be compensated as work accidents);
  - cancers caused by chemical agents classified as Cat. 1 carcinogens (EE);
  - congenital abnormalities caused by mutagenic agents (DK, EE);
  - cancers caused by passive smoking (DK);
  - cancers caused by leather dust in footwear production and repair (IT, UK, discussed as new OD in DE).

- damage to the voice(cf. 2.503 of Annex II of EU list)
  - "Severe hyperkinetic dysphonia, vocal cord nodules and severe insufficiency of the vocal cords" (CZ);
  - "vocal cord nodules caused by work-related permanent stress on the vocal cords (voice-related work) (EE, LV, LT, ES);
  - "chronic laryngitis and functional dysphonia by continued use of voice in distress" (PT, RO);
  - "severe hyperkinetic dysphonia, vocal cord nodules, or severe glottic incompetence, which disable from work with high demands on the voice; severe phonasthenia" (SK)

- diseases caused by psychosocial factors
  - general formulation in the list of HU: "diseases caused by psychosocial factors";
  - post traumatic stress disorders (PTSD) (DK) (It should be mentioned that PTSD is compensated in many MS as a result of work accidents.);

- psychoneurosis caused by long-term care of psychopathic people in psychiatric units" (RO);
- IT reports that between 2005 and 2009 about 400-500 work-related mental disorders each year were compensated under the complementary clause. (Work-related mental disorders are compensated in the Swedish open system and in some other MS under the complementary clause.)

4.8 Developments in the national lists

In 12 MS the national lists and/or the OD system regulations have been renewed substantially (see above 4.5: BG, CZ, DK, EE, HU, IT, LV, LT, MT, PL, SK, SI, ES).

In 10 MS the lists have been changed in some parts and/or some new OD have been included (AT, BE, FI, FR, DE, GR, HU, IE, PT, UK).

In five MS and other European countries no relevant changes have taken place (CY except the prevention list, NO, RO, CH), but in most of these countries changes are under discussion. No changes too, in the three countries without a list (see above 4.4: IS, NL and SE).

SE has not needed to change, because all diseases mainly caused by working conditions can be compensated under the open system.

Thus in almost all European countries, there was public interest in the structure and content of the national lists and these were under active discussion. This led to many amendments and inclusion of new ODs. In many countries, the EU list (Annex I and II) had an impact on these national discussions and changes.

4.9 Conclusions and recommendations

Open OD system, closed list system or mixed system with a list and a complementary clause?

Twenty six of the 29 European countries in the project have a national OD list. Two have no list and no specific compensation system, and one has a proof system. At least 13 countries have a mixed system with a list and a complementary clause, which "opens" the system. Some other countries seem to solve this problem in another way: their lists comprise a low number of items which are open-formulated in general terms and unite groups of OD under one heading with a similar function, like general complementary clauses. There are pros and cons for list systems and open OD systems: new knowledge on the link between working conditions and diseases may be applied faster in open systems. OD systems with a list may be more transparent and may help minimise under-reporting of OD, and the scientific and public discussion about inclusion of new OD in the list may improve the awareness of work-related health risks. The

pros of open systems and list systems can be adopted and the cons can be avoided by having a list and opening up the OD system by a complementary clause.

Recommendation: Each country should report to the Commission regularly on how the OD system works – the transparency of the national OD system; how information is given about OD covered by the national OD system; and how they are dealing with new knowledge on the causation of diseases by working conditions.

Prevention lists and/or recognition and compensation lists?

The EU lists in Annexes I and II as well as all national OD lists intend to improve awareness and prevention of occupational health risks. But most European prevention regulations do not intend only to prevent OD, but all work-related hazards and risks. Compared with the general and comprehensive prevention principles of the Framework Directive and its implementation by national prevention regulations and measures, the EU lists seem to be of relatively minor significance from a prevention perspective. The EU list, as well as most national lists, is targeted specifically at recognition and compensation. However the existence of the list has advantages in terms of raising awareness of occupational disease issues amongst the social partners and health professionals, and can act as a focus for research and epidemiology.

Recommendation: There seems to be limited value in a list specifically to help improve prevention measures; OD lists mainly aid recognition and compensation. Nevertheless, the EU and national lists help indirectly in improving prevention of OD's.

Harmonising structure, wording and content of the lists?

In most European countries, the content of national OD lists seems to be the same or more or less similar to EU list Annex I, but there are differences in the structures of the lists, the number of listed ODs and the wording of the particular ODs. In general, ODs should be defined by both aspects – the harmful agent and the kind and location of disease. Annex II is incorporated into national lists differently from country to country. Therefore, each European project in this field as well as European OD statistics run the risk of comparing apples with pears.

Recommendation: Though the differences between the lists may make it difficult to harmonise the national lists themselves, there is a need to keep OD reports to the Commission and statistics of MS in common standardised structures and wording.

Multiple-cause illnesses as OD?

The lists of some European countries refer to multiple-cause illnesses such as those linked to psychosocial strain, shift work, uv-radiation, passive smoking or

musculo-skeletal disorders. All MS agree about preventing these work-related risks, but there are differences in recognising and compensating them as ODs. All countries seem to have difficulty in fitting most of these illnesses into their existing concept of compensation and a new approach which takes into account the different factors involved would be helpful to everyone. However it is important to emphasise that uncertainties over compensation for multiple cause illnesses should not inhibit prevention policy; in many cases prevention techniques are already available and being implemented in MS.

Some of these diseases are not yet mentioned in the EU-list Annex I and II, but are in the recent ILO list. The national lists of several countries have recently included some of these diseases, and in some countries they may be recognised under the complementary clause. Scientific knowledge of the causation of these diseases is developing but the evidence is not clear. Inclusion in the national lists seems to depend on complex factors such as the political and economic situation, and specific legal conditions. In addition, many countries seem to fear problems resulting from inclusion of these diseases in the national lists. In a case of wide application, high expenditure for such risks may result which are only partly linked with working conditions; or, in the case of restrictive legal conditions and application, unfavourable public discussion and a high number of court cases may result.

Recommendation: Discussions on this problem should be based on the best available scientific knowledge. The EU should consider initiating discussion on the concept of multiple cause illnesses and how this relates to compensation and prevention systems, and consider partly financing and/or organising international research, information platforms on research results, and scientific exchange in this field.

5 Stakeholders' opinions and evaluations

5.1 Introduction

Within the framework of this project, the stakeholders of the 29 countries involved in the study were consulted as to their position on the implementation at the national level of different aspects of the European Recommendation: recognition of ODs, systems of compensation, procedures for recording and reporting of ODs, and, lastly, prevention policies and target setting.

In many countries, a large panel of stakeholders was consulted, including the representatives of employers and of trade unions, the State (ministries) but also sometimes the insurance organisations for accidents at work and occupational diseases, the prevention institutions for occupational risks, and the associations of occupational medicine, etc. (see the summary table of all stakeholders interviewed in the annex). This consultation took place through direct interviews, phone calls, e-mails or desk research.

Not all of the institutions interviewed in most countries expressed views on the different aspects of the recommendation.

Consequently, this chapter presents a non-exhaustive synthesis of the opinions collected. For more detailed information, it is advisable to refer directly to the national reports.

5.2 Stakeholders' opinion on recognition (lists of occupational diseases)

Opinion of the EU list

The stakeholders from only half of the countries covered by this study expressed their views on the impact of the European list of occupational diseases on their national legislation, and the changes they would like to see made in this list.

Impact on the national lists

In several countries, the stakeholders surveyed think that the European list has or has had a positive influence on the development of their own list (FI, HU). In Iceland, indeed, the EU list has, since May 2011, been the sole reference for occupational diseases that must be reported by employers and doctors.

In other countries such as the United Kingdom and France, stakeholders say that there has been no impact. In France, however, the presence or absence of such or such a disease on the EU list may sometimes be an argument put forward by the social partners in their discussions for the modification of the national list.

In other countries, some stakeholders apparently do not know of the existence of the European list.

Discussion on changes in the European list

In general, those stakeholders who expressed their opinion are divided into two camps as to whether the European list should be given more binding legal force.

The representatives of the employers' organisations are often opposed to such an approach. Czech employers gave a reminder that the Recommendation has only an indicative value. Irish employers are concerned about the prospect of a compulsory European list. In Finland, they think that it would be essential to be able to derogate from the content of the European list if necessary, providing justification; in any case the list as it exists at present could not be transposed into national law. French employers assert that a change in the status of the European list would be incompatible with the current nature of the French list, which offers an automatic presumption of work-related origin. In the United Kingdom, all the stakeholders are opposed to a more binding EU list.

On the other hand, trade union representatives and some others are in favour of greater standardisation of the national lists of occupational diseases (FI, FR, Spanish government, RO, CH). Many of them think that the European list could have a more binding legal force while forming merely a minimum common base that States could supplement. What is wanted by the Spanish trade unions, on the contrary, is levelling up.

National governments are usually in favour of the status quo. Several governments think that giving the European list more binding legal force is not necessary if the States ensure that their national list is standardised with those of other States (FI, PL). The Swedish social insurance organisation points out that social security systems have been built over time in a very heterogeneous manner in Europe, and hence that any standardisation of policies and practices in the area of occupational diseases will be very difficult.

Several stakeholders note that a compulsory common base would be very useful to help cope with the problem of migrant workers suffering from an occupational disease (FR, PL, CH).

Several new Member States, in particular Hungary (including the insurance organisation and Labour Inspectorate), Latvia and Romania, would like to see "more Europe", that is to say more European regulation or guidance in the field of occupational diseases.

Opinion on the national lists

In many countries there is a relative consensus concerning the content of the national list of occupational diseases: AT, BE, DE, DK, ES, FR, IE, IT, LV, PT, SE (consensus on the OD concept but not the list), and the UK.

In several countries, however, some stakeholders – mainly trade unions – want "new" diseases to be registered, such as mental illnesses, vertebral disorders,

MSD and some cancers; more generally, they want the list to be better adapted to the reality of today's working world.

Some stakeholders also want:

- allowance to be made for gender aspects in the recognition of ODs (Austrian MPs);
- the creation of a complementary system for recognition of diseases not included in the list (trade unions, Ministries of Health and Social Affairs and the Czech Society of Occupational Medicine);
- standardisation and transparency of the criteria for recognition at the national level (Spanish trade unions).

Finally, in several countries, the process of revision of the list poses various problems: updating of the list is considered too slow (DE, FR, NO); absence of social partners in the process (SI); expert appraisals considered biased by the French social partners; lack of precision in the description of diseases newly included in the list; and in the information relating to them such as the agent effects and the dose limit value (German employers).

5.3 Stakeholders' opinion on occupational disease compensation systems

In many countries, there seems to a relative consensus among stakeholders (AT, BE, CZ, DE, DK, FI, FR, IE, IT, LV, LT, NO, PT, SK, ES, SE, CH, UK) regarding the system of compensation for occupational diseases. However, some mention weaknesses in their system which could be improved; there were almost as many suggestions as there are national compensation systems.

In Finland, employers are of the opinion that multiple-cause conditions should be considered with caution. In France also, employers consider that the current system of legal presumption entailed in the tables of the national list leads to difficulties when faced with multiple-cause diseases such as cancers, neurodegenerative diseases and mental illnesses (opinion shared by the insurer CNAMTS). In relation to mental illnesses, the employer representatives believe there should be a move toward a system of individual appraisal and not tables and presumption of occupational origin.

The British employers support the policy which is bringing about a more integrated approach to getting people back to work, and they are concerned by the growing "compensation culture" (more civil litigation), although the workers representatives argue that there is no growing compensation culture.

In Germany, a national debate about compensation for occupational injuries and diseases took place in 2008 in the context of the modernisation of injury insurance. Several aspects were discussed at that time, especially the lump-sum nature (or "abstract assessment of damage") of the compensation for permanent

damage and proof of the causal link in the area of ODs. The trade unions appeared supportive of the current system of compensation, while the employers criticised several aspects.

According to the German employers, the amount of the permanent compensation no longer takes into account the successes achieved by rehabilitation to help keep someone in work. Thus, the gap between abstractly calculated pensions and actual income losses is continuing to increase. Moreover, they argue, accident insurance pensions should only be paid until the beginning of the old age pension payment by the statutory pension insurance scheme. As an insurance against disease in old age, contributions should be paid instead to the pension insurance scheme based on the level of the contributions of the accident insurance pension. Lastly, the employers say, the line between general risks to health and occupational diseases has to be drawn more clearly and precisely with regard to the limitation to widespread diseases (e.g. back pain), and also in connection with risks due to personal behaviour. The principle of causality, according to which only costs arising from clearly work-related diseases may be borne by the accident insurance institution, must also apply in such cases. It is essential to draw a very clear line between the special system of social accident insurance and the other competent health insurance and/or pension insurance systems.

Subsequently, the German insurance associations have prepared proposals modifying the abstract damage assessment. As a result more accurate compensation could be achieved by decreasing the abstractly calculated pension as a matter of principle and by increasing by means of increments or the like in the case of income losses. On the other hand, from the associations' point of view, it is important to specify the disease characteristics in the OD-list as precisely as possible by stating the disease, the agent causing the disease and as detailed a description as possible of the dose-effect relationship. The latter, above all, is necessary for demarcation in case of multiple-cause diseases.

In several countries, the trade unions complain that, for various reasons which differ depending on the country, it is in practice hard for the victims of certain occupational diseases to obtain compensation. In Finland, the boundaries of ODs in some cases are defined very tightly so that some ODs recognised by consulting physicians will not be compensated by the insurance system. And there are differences between consulting and insurance company physicians in the assessment of the permanent harm due to a recognised occupational disease, which should be clarified. In France, the procedure for a claim for recognition of an OD can be an "obstacle race"; the examination times of claims, in particular, are too long (three months, extendable), especially for cases examined under the complementary system. On the other hand, the condition of a 25% permanent disability rate for access to the complementary system is considered too demanding (this opinion is shared by the insurer CNAMTS). The assessment of permanent harm also poses a problem in that the disability scale is now inappropriate because it is based mainly on physiological harm and does

not take into account the effect of the OD on the loss of ability to perform the original work (this opinion too is shared by the insurer CNAMTS).

In Italy, all stakeholders agree that the amount of the benefits should be index-linked to inflation. In Latvia, all stakeholders agree that no major changes are required except changes in compensation limits depending on the economic situation. In Lithuania, the trade unions assert that the financial resources devoted to compensation for ODs should be increased, in particular through a higher contribution by companies with higher rates of chronic ODs. In Norway, the social security body is in favour of a higher compensation for hearing loss cases, and the Norwegian Medical association deplores that process of harmonisation between the two compensation systems is still pending.

In Portugal, the trade unions express some doubts in relation to the organisation of the instruction process of cases, in particular with the length of time required for OD recognition. They suggest that the insurance organisation should proceed with the process once it has received a medical notification form and not wait until the patient's application form for compensation has been received.

In Slovakia, some stakeholders suggest the creation of a system which would enable an OD victim to return to work in an appropriate workplace (at the expense of the employer) instead of being dismissed.

In Sweden, the trade unions complain that the processing of claims takes too much time. And the Conservative party thinks that economic incentives for return to work should be increased (through benefit to the victim or taxation of incomes).

In Switzerland, the occupational physicians regret that, since there are several private insurers and one semi-public insurer, there are differences in recognition practices; they suggest that there should be a process that leads to similar recognition practices.

In Iceland and in the Netherlands where there is no specific insurance system for occupational diseases, the trade unions are in favour of mandatory liability insurance for ODs (NL) or think that OD victims should be insured in the national scheme in the same manner as victims of accident at work (IS).

In several new Member States, the stakeholders seem dissatisfied with their national system of compensation or with the planned changes in this area. In Cyprus, the Ministry of Labour notes that many workers who suffer from ODs claim for incapacity benefits instead of the ad hoc sickness benefits of physical damage/disablement pensions. It also thinks that benefits from Social Insurance Services are very limited and need to be improved. In Estonia, the employer representatives and employee representatives oppose one another in relation to the advisability of creating a specific insurance system for occupational injuries and diseases, as provided for by law.

In Hungary, all the stakeholders agree that their country needs help from the EU level. Since 2007, specific benefits for the victims of occupational disease have existed but there is no specific department or organisation to take responsibility

for prevention and rehabilitation functions. The lack of interest in OD reporting is also complained of, and the problem of the numerous cases of ODs reported now but contracted several decades ago. Finally, the procedure for recognition of cases should be more transparent, and the social partners would like to be involved in it.

The Polish "policy makers" generally share the point of view that the current compensation system is not generous enough, but are of the opinion that, at the moment, it is not possible to improve it because of the economic condition of the state. The trade unions want much higher compensation benefits and the Ministry of Health regrets that appeals against OD certifications take too long to be processed.

In Romania, the stakeholders complain that only 40% of declared cases get compensation. They also think that the Insurance Fund for WAOD should be an independent public institution, separated from the social insurance system with tripartite administration (government, unions, and employers associations), with a transparent budget.

The Slovenian trade unions complain of a completely deficient system of OD compensation, with very few cases reported and legal proceedings pending for several years; most of these proceedings end with non-recognition of the occupational nature of the plaintiff's disease, except for diseases caused by asbestos exposure.

5.4 Stakeholders' opinion on recording & reporting of occupational diseases

Relatively few stakeholders specifically expressed an opinion on the procedures for reporting occupational diseases in force in their country; this may seem contradictory to the fact that many of them also recognise the under-reporting of occupational diseases, the extent of which varies from country to country.

Although stakeholders of some countries are not satisfied with their reporting system (such as EE, ES), nevertheless the reporting systems as they have been designed are often considered suitable (this, in particular, is the opinion of the stakeholders in DE, DK, FR, NL, PL, SK and CH). However there are obstacles adversely affecting their efficiency.

These obstacles have already been described in Chapter 2.6 "Developments regarding recording and reporting of occupational diseases" under "The problem of under-reporting".

Faced with these problems, the stakeholders who replied to the survey again suggested "conventional" solutions to the problem of under-reporting, such as more training for occupational physicians, specialists and general practitioners, and better information for workers and healthcare services (especially hospitals).

In addition to these widely-supported suggestions, the stakeholders of some countries would like the reporting systems to evolve toward:

- simplification of reporting procedures (LV, FI, IT, LT, PT, ES);
- modernisation of reporting procedures via the development of online reporting (CY, IT, LT, MT, NO);
- a more effective role for occupational physicians in companies/occupational health services (AT, CY, IT, MT, ES).

5.5 Stakeholders' opinion on Occupational Diseases prevention

Strengths and weaknesses of national prevention policies

In 14 countries (BE, CY, DE, DK, FI, FR, NL, PL, NO, HU, IE, IT, CH, UK) stakeholders who were questioned were generally satisfied with current occupational disease prevention policies.

In France and in Denmark, this was a unanimous view. However, it must be underlined that, in these countries, as in the UK and in Poland, prevention policies are the result of tripartite agreements.

Six countries put forward some of the particularly positive aspects of their systems. For example, the Hungarian ministry considers that their system of reporting cases of enhanced exposure is an important and effective prevention method. In Norway, the prevention programs provided by occupational health services are considered to be good.

Social partners in four countries made some specific comments, presented in table nine below:

Table 9: Specific comments of social partners in 4 countries

	Employers	Trade unions
DE	• Improved coordination of health and safety at work meets targets for reducing bureaucracy, increasing transparency and preventing stress-related conditions in companies. • Good company contribution to health and safety at work, especially, in workplace health promotion. • The availability of assistance from accident insurance institutions and health insurance funds is positive.	
IE	Both see the future impacted by the economic crisis (especially for employers) but recognise that, despite cuts in staff, the HSA is trying to maintain a focus on prevention.	
IT	Happy with OSH training and information provided to workers.	
UK	Both recognise the impact of "new" occupational illnesses on individuals, on employers and on the economy and the value of treating them in an integrated way.	

Despite this high level of satisfaction there remain, for 14 countries again (AT, BE, BG, CZ, DE, EE, ES, FR, HU, IT, LT, CH, PL, UK) a number of weaknesses in national prevention policy. As such, nearly half of those who responded bemoaned the lack of clear and well implemented prevention policies targeting occupational diseases (BG, CZ, EE, IT, PL, ES). The Latvian government regretted that the quality of medical examinations was not always ensured. The problems highlighted by the social partners in the different systems are summarised in table 10 below, by country and by the author of the comment:

Table 10: Problems highlighted by the social partners in the different systems

	Employers	Trade unions
AT		Too many projects on workers' behaviour, instead of aiming at a change in working conditions or procedures.
BE	Both critical of external prevention services.	
DE		'Work-related diseases' are not included in the meaning of secondary and tertiary prevention. Work-related diseases often result in early retirement and in reduction of earning capacity. The costs arising from this have to be borne by the persons concerned themselves.
FR	OD prevention is disconnected from recognition/compensation: all efforts and financial resources go to compensation.	Doubts the efficiency of recent company-wide agreements on psychosocial risk prevention. Regrets that the organisation of prevention is very fragmented and that coordination between the various stakeholders is difficult (especially with the government).
HU	Problems with outsourcing, subcontracting and the self-employed.	
IT	Large disparities between regions.	
CH		Prevention of ODs is still the preserve of specialists and is still inadequately implemented at a company level. Inadequate level of knowledge in companies, with excessively sporadic inclusion of occupational health physicians and with gaps in the legislation.
UK	Concerned about their ability to manage many of the cases which arise at work, and about the costs of doing so. Thinks cost cutting is essential in the public sector. Wants clarity over how any charging regime may be applied. Doesn't want to change the relationship between the regulator and the employer.	Have significant concerns about the impact of current budgetary pressures on the regulators, such as loss of staff, and about a policy option which may give lower priority to preventive inspections. Also have concerns about extending the charging regime for inspections.

Suggestions to improve national prevention policies

Numerous policy reforms have been suggested by stakeholders, which as far as possible, have been ordered below into 4 sub-sections.

Changing priorities in occupational disease prevention

Stakeholders from eight countries made suggestions for new priorities in occupational disease prevention.

In three countries, there is broad stakeholder consensus on the definition of new prevention priorities. Latvian stakeholders would like to see MSDs becoming a priority, as do Belgian social partners who would also like to include psychosocial issues, carcinogenic substances and nanomaterials into prevention priorities. Lithuanian stakeholders ask for a general focus on improving working conditions.

Social partners in four countries (FI, IE, CH, UK) made proposals for new priorities:

- Finnish employers would like to see occupational asthma and noise induced hearing-loss more targeted in prevention, whereas trade unions would like to focus on prevention in the use of hazardous chemicals.
- Trade unions in Ireland, Switzerland and UK ask for:
    - a greater emphasis on occupational health, and occupational diseases affecting mainly women, like dermatitis and breast cancer risks related to shift work (IE);
    - an extensive campaign over several years on the topic of "Work and health" which must also include employees' private physicians (CH);
    - "new" occupational diseases to be tackled vigorously both by employers and by regulators (UK).

The Norwegian Labour Inspectorate would like to see more efforts made to prevent MSDs and psychosocial factors, and more work done on reducing exposures that contribute to occupational chronic obstructive pulmonary diseases.

The Swiss occupational medicine association and German trade union raise questions regarding the involvement of work-related health hazards in prevention policies.

Finally, 3 countries would like to see a clearer link between the recording of occupational diseases and the prevention of those diseases in the future (CY, FI, NL).

The table below provides a summary of the suggestions for occupational disease prevention priorities put forward by stakeholders in the different countries. Most were made by social partners, and suggest that prevention focuses on MSDs, work-related health problems, psycho-social issues or hazardous substances.

Table 11: Suggestions for OD prevention priorities put forward by stakeholders in the different countries

	Employers	Trade unions	Government	Others
BE	MSDs Psycho-social issues. Carcinogens Nano-materials.			
DE		Work-related diseases.		
FI	Occupational asthma (caused by moulds) Noise induced hearing loss (improve the use of hearing protection).	Hazardous chemicals.		
IE		Occupational health, ODs affecting mainly women (dermatitis and breast cancer risks related to shift work).		
LV	MSDs.			
LT	Improving working conditions.			
NO			MSDs Psycho-social issues. Occupational Chronic Obstructive Pulmonary Diseases.	
CH		Extensive campaign on "Work and health" including employees' private physicians.		OD prevention as well as work-related health problems.
UK		New ODs tackled vigorously both by employers and by regulators.		

Developing and improving information and communication on occupational diseases prevention

Six countries expressed a general need for more information and communication on occupational disease prevention. (CY, FI, FR, ES, IT, MT).

Four countries (CY, FI, ES, MT) would like to see more national prevention campaigns and information on occupational diseases. In Cyprus, the three main stakeholders agree on this issue and the labour inspectorate would like information to target employers.

In Finland, though trade unions and the government are keen to see more information available at the workplace level, they would also like to see information dispersed through the media to better reach workers, independently of where they work. This is also true of Spanish employers who would like campaigns to raise public awareness of occupational diseases such as cancers.

For three countries, there is also a need to better train workers on risk (ES, IT, MT). Spanish trade unions would like workers to be better taught about risk exposure, preventative measures and health alerts, whereas Italian trade unions think that a cultural change is needed from employers but also for workers.

Italian employers and Maltese stakeholders recommend that occupational safety and health training should be delivered in schools or in university courses (for physicians, engineers, etc). Other Italian stakeholders would like more training at work (rather than formal training sessions), and also training in a safe and healthy life-style.

Developing better coordination between the key stakeholders for prevention

Ten countries regret the lack of coordination between the key prevention stakeholders and call for more coordinated prevention action plans in their countries (CY, DK, IS, IE, NL, NO, PT, SK, CH, ES).

In 3 countries, (CY, DK, SK), all stakeholders suggest the creation of alliances or networks to implement prevention policies (between occupational physicians, primary care physicians, occupational safety officers, etc). The Swiss occupational medicine association makes the same point as does the Norwegian government, who would like to see a better integration of occupational medicine in the medical curriculum for all health professionals. The Spanish government would also like to coordinate better the social security system, the prevention system and the national health system.

Irish employers want a more efficient and balanced dialogue with the HSA (rather than top-down regulation), whereas the Dutch government endeavours to make it possible for parties to assume individual responsibility by tripartite agreements.

In Portugal and Iceland, trade unions would like the state to make significant investments in the development and implementation of an efficient prevention policy, involving the social partners, and of a closer co-operation between for

example, the Administration of Occupational Health and Safety, the Directorate of Health and the Icelandic Rehabilitation Fund.

In Germany, social partners recognise that the "Common German Policy on Health and Safety at Work" (GDA) improved coordination of safety and health at work. However they would like their contribution to be increased, since they are represented in the National Conference on Health and Safety, but have no voting rights, acting therefore as a mere advisory panel.

Adapting the rules and monitoring prevention in companies

Fourteen countries would like to see some changes either in their national laws or in the implementation on the ground of the rules relating to occupational disease prevention. (BE, CY, FI, HU, IS, LT, MT, NL, PT, SK, SI, ES, CH, UK).

In five countries, SMEs and the self-employed are not sufficiently targeted in national prevention policies and legislation, and stakeholders would like a legislative framework that sufficiently takes this into account (FR, HU, IT, LT, PL). There is also a call for a better implementation of risk assessment in workplaces, and to see it include in a more appropriate way prevention of occupational diseases (IS, LT, PT, SK, ES). In order to motivate companies to develop prevention policies, Hungarian and Lithuanian stakeholders want to introduce financial incentives for employers to provide safe working conditions.

In order to monitor prevention on the ground, some countries would like to see more inspections into compliance at a company level (FI, NL. HU, ES). However, in Belgium, employers would like more self-regulation of companies and preventative services, whereas trade unions call for the authorities to take a more decisive role.

Role of occupational health services and physicians

Several countries call for a clearer and more effective role for occupational health physicians (CY, HU, IT, LT, SK, ES).

Latvian social partners agree that health examinations should be more effective, and that the competence of occupational doctors should be increased, together with the accreditation of OHS services. Italian trade unions would also like to improve the role in occupational disease prevention of the "competent physician" (currently often limited to sanitary surveillance). This is also the opinion of Spanish unions who call for the position of occupational safety and health services inside companies to be given greater importance, and to create a link between occupational physicians and the identification and early diagnosis of occupational diseases.

In Slovakia, stakeholders call for a reinforcement of competencies and facilities for public health offices, and to expand and improve studies and specialisation in occupational medicine in undergraduate, and mostly in postgraduate studies (not only in the occupational medicine curriculum, but also in general medicine and public health curricula).

The Spanish government thinks that occupational health should be included in the field of public health.

The Hungarian Insurance Fund suggests the continuous presence of occupational specialists or inspectors in companies, and would like to see regulations allowing them to do their jobs without fear of sanctions by employers. On the contrary, Hungarian employers would like occupational health examinations be performed by the health fund.

In Cyprus, the role and the competence of the occupational physician could be extended to doing the risk assessment together with the safety officer.

5.6 Stakeholders' opinion on the targets set at national level for prevention of occupational diseases

Nearly all countries agree on the fact that it is important to set prevention targets. Moreover, quantified objectives are believed to be useful, because they stimulate prevention policies, and can lead to regular monitoring and evaluation. But quantified objectives are hard to apply to occupational diseases. German trade unions remark that prevention targets can serve as a basis for better gathering of data on work-related diseases and, thus developing appropriate measures. However, French insurance funds mention that the relationship between preventive measures and the number of reported cases is hard to establish.

In order to determine these targets, Romanian stakeholders would like to build a national strategy with a multi-annual budget involving key actors. Italy also calls for improving co-operation between all key stakeholders in order to help increase knowledge about occupational risks.

Ten countries agree on the targets set at national level regarding prevention of occupational diseases (BE, DK, FI, FR, DE, IC, IT, NL, CH, UK). It is important to mention that in 3 countries the targets were set through a participative approach with social partners (BE, DK, UK)

The following table illustrates the key reasons for satisfaction for certain stakeholders in different countries. It should be noted that governmental input was very limited, as governments, in the main, set prevention targets.

Table 12: Key reasons for satisfaction for certain stakeholders in different countries

	Employers	Trade unions	Others (Insurance Funds mainly)
FI			Employees: a reduction of ODs by 10% is the right direction.
FR			The target "reduction in number of workers exposed to carcinogenic agents" is considered realistic.
DE	Successes achieved in the last 15 years thanks to the efforts of the companies as well as the accident insurance institutions and the health insurance funds.	Supports specific prevention targets.	
NL	Reliability of monitoring instruments.		
CH			Satisfied with the continuous reduction of ODs (but remark on an increase in non-occupational accidents.)

However, some countries understood the targets as recognition targets and not prevention targets. This is the case for example in Latvia, where stakeholders think that in 2011-2015 the maximum number of registered occupational diseases will be reached and that, only after that date, target setting for reduction of occupational diseases will become meaningful. Social partners in the Netherlands think that setting targets on reducing occupational diseases should be a national responsibility (and not an EU level decision) but first, in their view, recording should be improved.

Even if quite happy with the targets set in their countries, some suggestions were made, mainly by the insurance funds in different countries.

Some countries are not inclined toward quantified targets: Swedish employers would rather have ambitions than fixed targets, and Swiss trade unions would

prefer qualitative targets. On the contrary, Icelandic trade unions would like higher and more focused goals to be set, based on better documentation.

One comment relates to the importance of obtaining clarity on the prevalence/incidence rates of occupational diseases in various sectors before setting prevention targets (CY). The Norwegian Labour Inspectorate is currently working on improving the reliability of data in order to be able to monitor and assess targets set.

Some countries would like to see some occupational diseases more targeted by prevention policies, like for example:

- psychosocial working environment (DK, ES);
- musculoskeletal exposures (DK);
- skin diseases and sensitisation by occupational allergens (CH);
- work-related diseases, (IT, ES);
- occupational cancers (IT).

Targets for the training of occupational physicians would also be welcomed, for example:

- improve the knowledge of all doctors/(non-occupational) physicians regarding occupational diseases (AT, BG, HU, LT);
- include occupational health in the national health program and give it appropriate importance (HU);
- increase the number of licensed occupational health physicians and set a target for increasing the number of in-house occupational health physicians and specialists (LT).

Maltese stakeholders suggest, as a target, increasing health education in schools and raising awareness among the general public.

As a method of prevention, and because of the number of small enterprises, Hungarian employers would like to lower the threshold for the election of occupational safety representatives from the current 50 to 20 employees.

5.7 Stakeholders' opinion on the priorities for prevention of occupational diseases at the European level

In the previous sections we focused on the national level and sketched the positions and priorities of stakeholders in the national social economic context. The social partners also paid attention to the policy for the prevention of occupational disease at the EU level.

The independent research and training centre (ETUI) of the European Trade Union Confederation has selected as main themes for 2011-2012:

- psychosocial factors: the integration of psychosocial aspects in general health and safety policies, and tools related to issues like stress and mental health;
- the revision of the Carcinogens Directive, including the potential improvement brought by the inclusion of the reprotoxic agents in the Directive;
- asbestos: monitoring the problems caused by asbestos, including the legal cases brought before the courts.

In previous years, the ETUI Health and Safety Department has published many reports on occupational diseases, on subjects such as: women and occupational diseases, nanotechnologies, production and reproduction, occupational cancer, and musculoskeletal disorders.

According to BUSINESSEUROPE further progress in the reduction of work-related accidents and occupational diseases can and should primarily be achieved by making what exists work better and by developing efficient support measures for SMEs. The emphasis should be on simplification of the legal framework in the OSH area and new specific legislation in the future must be based on a) a proper analysis of implementation of the existing legal framework; b) a sound analysis of scientific evidence and c) a thorough assessment of economic and social costs and benefits in relation to the introduction of new legislation – for example, before revising the Carcinogens Directive, the implementation and impact of the current Directive should be assessed. As to MSDs priority should be given to the preparation of toolkits that are sector- and workplace-oriented, with a view to closing the knowledge gap and enabling companies to develop well-adapted solutions. BUSINESSEUROPE further stresses that the development of statistical data and instruments should not result in additional administrative burdens for companies.

5.8 Conclusions

The level of awareness of the stakeholders on the different aspects of the Recommendation varies significantly depending on the topic.

They usually know quite well their system of recognition of occupational diseases (if there is a national list) and their compensation system. This is not surprising since the social partners and the State are involved in developing the content of the list and in defining the benefits provided to the victims (the employers generally being the financers of the compensation system).

The stakeholders also often have a good knowledge of the national prevention policies in relation to occupational diseases in their countries, they can criticise the approach, and have suggestions to make.

This is less true for more technical aspects such as reporting and recording systems for ODs, which are often poorly documented; stakeholders are not involved to the same extent, but were still able to see the problems of under-reporting of occupational diseases in their countries.

It also seems that stakeholders sometimes do not have a general overview of the occupational disease situation in their countries. It would be helpful if the level of expertise of stakeholders could be increased so that all stakeholders involved (including political stakeholders, social partners, OSH experts, scientists, and doctors) work in a more coordinated and open way on all the issues related to occupational diseases.

6 New work-related hazards

6.1 Introduction

Continuous changes in work and working conditions give rise to new occupational health risks and possibly to new occupational diseases. Social partners, especially employers and employees, and governments have a need for timely and specific knowledge about new risks. Where there is insufficient knowledge of these risks, opportunities for intervention and prevention are missed. Although a great deal of effort goes into risk assessment in order to manage the risks brought on by new technologies, signalling new and undesirable side-effects of work on health is a complementary approach. In society, the need to identify new health risks more quickly and more effectively has grown particularly quickly over the past decade. It is continually emphasised that identifying new risks is a process that involves many uncertainties, in which a balance must be found between a dynamic and a considered approach. The challenge is to prevent any occupational damage to health without creating unnecessary concern. There is a growing impact of chronic work-related health problems such as musculoskeletal disorders, psycho-social risks and stress at work. There are concerns about the development of nanotechnology. Reproductive capacity can be endangered by the health problems which can arise when parents-to-be or their unborn children are exposed to risk factors present in the working environment

These concerns were expressed in the European Parliament resolution on the mid-term review of the European strategy 2007-2012 on health and safety at work (2011/2147(INI)). Most of them had already been taken into account in establishing the priorities in the EU strategy 2007-2012 on health and safety at work: research into and regular gathering of data on new risks, RSI, and stress and burn-out at work. The European Agency for Health and Safety at Work has established a 'Risk Observatory' with a special focus on 'emerging risks'. Member States can be supported in research on new risks and introducing new practices contributing to more the more effective application of health and safety requirements, through the 7th Framework Programme on Research and Innovation.

New work-related hazards may introduce new work-related or occupational diseases. Recommendation 2003/670/EC2 does not explicitly focus on new work related illnesses or occupational diseases, but does so in a more general way. It calls for active involvement of all players in developing measures for effective prevention of occupational illnesses; it recommends collection of information linked to the epidemiology of Annex II diseases and any other disease of an occupational nature; and it promotes research in the field of ailments linked to an occupational activity, in particular ailments listed in Annex II and disorders of a psychosocial nature related to work.

This chapter deals with:

- definitions and typology of new work-related diseases;
- different methods for tracing new work-related diseases, including health surveillance;
- summarising activities in this field at a EU and national level, with special focus on nanotechnology, stress at work and electromagnetic radiation;
- considerations and suggestions for improvement of the Recommendation.

6.2 Definitions and typology of new work-related diseases

New risks at work may cause new work-related diseases. In this report the definition of 'new risk' or work related hazards is used as formulated by the European Agency for Safety and Health at Work:

- the risk was previously unknown and is caused by new processes, new technologies, new types of workplaces, or social or organisational change, or
- a long-standing issue is newly considered a risk due to a change in social or public perceptions (for example, stress or bullying), or
- new scientific knowledge allows a long-standing issue to be identified as a risk.

New work-related diseases are being discovered all the time, although they might not be as new as may be suspected. Such cases often involve an already known syndrome, caused by recent changes in work and working conditions. New work-related diseases can be categorised in various ways. An example is shown below (see Table13). There are syndromes caused by changes in work and working conditions, when a possibly new combination of health complaints arises as the result of causes which were not previously known to produce such symptoms. Examples are Popcorn Disease and Progressive Inflammatory Neuropathy (PIN). There are also health problems that turn out to be due to known forms of specific agents (such as breast cancer due to night shift work or respiratory illness caused by fine dust/ particulate matter). There is a special category of disorders that can occur in offspring when parents have been exposed to harmful substances before or during the pregnancy.

Table 13: Categories of new work-related diseases, with examples

Category	Examples
New diseases due to changes in work and working conditions	• Progressive Inflammatory Neuropathy (PIN) in swine slaughterhouse workers • Popcorn disease • Legionnaires' disease • Allergy to preservatives (paint, adhesive) • Allergy to biological pesticides
New risks from known agents	• Breast cancer due to night shift work • Cardiovascular diseases caused by fine dust and stress at work • Lung infections due to welding fumes
Consequences of parents' occupational exposure on their offspring	• Congenital abnormalities • Cancer in children • Delayed neuropsychological development

6.3 Methodology

Complementary to risk management, it is important to detect new, adverse occupational health consequences: incident notifications of cases or clusters of possible occupational diseases that are assessed, weighted and translated into preventive actions.

Detecting new occupational health risks requires different instruments from those used for monitoring known occupational diseases. Furthermore, the choice of instrument is determined by characteristics of the health problems to be investigated, such as its nature and seriousness and the strength of the causal link with the possible cause. That is why it is not possible to detect new occupational health risks using a single method; several complementary methods are required. If the situation involves a signal of a rare disease with a high aetiological fraction (that is, work is an important cause of these complaints), then a large group of sentinel physicians and others are more suitable than epidemiological research (popcorn disease, PIN). Stimulating and registering 'spontaneous reports' by physicians or employees would be a good instrument in such cases. In the case of frequently-occurring illnesses with a low etiological fraction (that is, work is a cause, but there are many other causes too), epidemiological research among large groups of employees is more valuable than individual reports (breast cancer due to night shift work, cardiovascular disease due to fine dust).

Tracing new work-related diseases; the Sentinal case approach; parallel with pharmacovigilance

This approach is comparable to analysing and learning from occupational accidents, which is now common practice in OHS management. One can also learn from experiences with identifying the adverse effects of drugs: although drugs have undergone extensive testing for safety in the research phase, they may produce unexpected and sometimes serious adverse effects after introduction to the market. Examples include the epidemic of congenital birth defects due to the sedative thalidomide (Softenon) in the early 1960s, and the serious congenital abnormalities caused by diethylstilbestrol (DES). Many countries have therefore set up national centres for reporting the side effects of medicines and for registering congenital abnormalities in systems such as EUROCAT (www.eurocatnederland.nl). More than 30 years' experience of identifying the adverse effects of drugs has shown that a notification system can make a valuable contribution to post-marketing surveillance. 'Pharmacovigilance' has thus become an important source of information. This methodology can be applied to detection of new work-related diseases. In the USA the Health Hazard Evaluation Program (http://www.cdc.gov/niosh/hhe/) with case investigations and cluster analyses is practiced with success on a large scale. Also in Europe, see chapter 6 for the work of MODERNET and the French RNV3P programme.

Epidemiological studies; health surveillance

Many well designed epidemiological studies are performed in the Scandinavian countries. These studies are facilitated by the fact that 'record linkage', that is, linkage between records of health outcomes with past occupational data, is not hampered. A study on occupational cancer with data from cancer registries from all Scandinavian countries with data on past occupation from these patients extracted from census data, is a good example (Pukkala, 2009).

Health surveillance of workers with (potential) risky exposures is another method. In radiation workers, health surveillance programmes are common practice and there might be potential for health surveillance in nanoworkers to serve as an early warning system in this field.

6.4 Inventory of activities on new work-related hazards

From the literature study and interviews with key informants from international bodies the major activities at an international level have been gathered and summarised. An inventory of activities at a national level has been made from the country reports focusing on research carried out in the field of emerging or new occupational risks and work-related psychosocial disorders in particular, as this is a major item in the Recommendation.

Activities at an international level

In 1992, the WHO introduced the theme 'New Epidemics in Occupational Health' into its Workers Health Program. The WHO planning group took the initiative to gather information on early signs of occupational health problems that are not or not yet regarded as epidemics, but which have been signalled as case reports, or clusters of changes in morbidity trends. This information was discussed at an international symposium in Helsinki (Rantanen, 1994). The chosen approach was one that lies between intuitive prediction and scientific observation; an approach that was more proactive than reactive. Subjects discussed in Helsinki included sudden unexplained death in the workplace, occupational reproductive disorders, cancer caused by work and multiple chemical sensitivity. More strategic subjects were also discussed, such as communication on dealing with uncertainty in risk management and the researching of disease clusters in a particular group or sector, all of which are still important in this field.

Within the Global burden of Diseases program there was a special focus on the impact of work-related diseases on mortality/life-expectancy and disablement (DALY approach) that covered the whole range of classic occupational diseases and work-related diseases (Nelson et al, 2005)

European Union: In the EU-OSHA Strategy 2009-2013 the strategic goals include anticipation of new and emerging risks in order to facilitate preventive actions: http://osha.europa.eu/en/publications/work_programmes/strategy2009-2013 .

Both the Commission and EU-OSHA carry out activities in this field. The Commission supports several activities (Strategy, FP7 Program) and established the European Agency Occupational Health and Safety Risk Observatory in Bilbao in 1996. New occupational risks are expected as a result of new technologies, changing work organisation, the feminisation of work, ageing, globalisation and increasing work pressure and information supply. It is important to identify and tackle these new risks at an early stage. Since 2005, the European Agency has published Expert Forecasts on certain themes such as physical risks, biological risks and psychosocial risks. There is a focus on specific occupational and work-related diseases, such as musculoskeletal disorders, diseases caused by work-related stress and psychosocial risks, and occupational diseases caused by dangerous substances.

ESENER – European survey of enterprises on new and emerging risks

ESENER explores how health and safety risks are managed at the workplace. Questions cover the management of health and safety in general, management of psychosocial risks and also the participation of workers. The survey asks respondents about the measures taken at the workplace, the main drivers for taking action and the most significant obstacles. It covers private- and public-sector establishments with ten or more employees in the 27 EU Member States, as well as Croatia, Turkey, Norway and Switzerland.

EUROGIP in France produced an overview of new occupational health risks based on a survey and a literature study.[14] The report explored a number of themes such as work stress, the position of contractors (those who provide services to employers on a contract basis), new communication techniques and nanotechnology. It recommended linking the introduction of new technologies and substances to research into possible health effects and prevention methods. EUROGIP also calls for better international information exchange so that measures can be introduced quickly.

MODERNET/COST International exchange of information on possible new work-related diseases: MODERNET (Monitoring Occupational Disease and Emerging Risks NETwork) is establishing a network for monitoring trends in occupational diseases, such as allergic and infectious diseases and reproductive hazards, and new and emerging occupational risks caused by biological agents. The monitoring system will be based on the reporting done by physicians (a form of "sentinel" system). Such a network will support the work of OSH-specialists and physicians as it will enable a rapid exchange of information and examples of appropriate preventive actions. A set of methods to monitor occupational diseases is being developed based on the comparison of the methods used in the different European Member States. The project scope will also include validity testing of the data and assessment of the economic impact of the occupational diseases. This network is organised by the University of Manchester, the Finnish Institute of Occupational Health (FIOH), the University of Milan, the National Institute in Prague and the University of Grenoble together with the Netherlands Centre for Occupational Diseases. This initiative is now an Action under the Individuals, Culture, Society and Health section of the European Cooperation in Science and Technology (COST) programme and is supported by COST: http://www.cost.esf.org/domains_actions/isch/Actions/IS1002/%28glossary%29/off . Other countries have joined this action.

Activities at a sectoral European level:

The European Union's social partners in agriculture, EFFAT and GEOPA-COPA made an Agreement in October 2004 on the reduction of workers' exposure to the risk of work-related musculoskeletal disorders. A safe and healthy working environment for agricultural workers is essential to maintaining agriculture as an attractive sector for workers, and hence for the competitiveness of the sector.

An inventory of research on work-related psychosocial disorders was one of the issues in the national reports and presented in the Chapter 2.8 (research on work-related psychosocial disorders). Research activities in this field were reported from most countries. They vary from development of methods and instruments (Austria) and university research (different countries) to development of a biopsychological model to limit claims for work-related stress. In Spain an Observatory for psychosocial stress and epidemiological studies was launched in 2008.

Some countries did not report research activities (Bulgaria, Czech Republic, Latvia, Portugal, Slovakia). Romania reported 'no official activities, but some research at universities'. In Greece 'research is only announced'.

In France, principles of pharmaco-epidemiology have been successfully applied to reports of unusual cases of occupational diseases [3]. Now that pharmacovigilance has been the focus of attention in public health, it seems high time that serious action is taken with respect to health and safety vigilance.

Data mining for new occupational diseases in French database

All reports of occupational diseases, evaluated by all departments of ODs in university hospitals are stored in a common database, the RNV3P (Réseau National de Vigilance et Prévention des Pathologies Professionnelles). Bonneterre has successfully used data mining techniques in this database. He calculated proportional reporting ratios (PRR) for all reported combinations of health complaints and reported risks that occurred more than twice. The PRR is equal to the ratio between the probability of having a specific exposure and the probably of having the specific health complaint in the case of exposure to any risks other than the specific exposure.

Between 2001 and 2005, 24 785 reports in the RNV3P were analysed. Some 3830 combinations were found, of which 47% were eligible for compensation. Of these, 1344 different combinations of illness and exposure were reported more than twice, of which 922 were eligible for compensation and 422 were not.

In 162 cases, the calculated PRR met the criteria established in advance; this was therefore higher than expected. These 162 cases may form a signal and must be further analysed.

Further analysis is currently taking place, for example, of the relationship between trichloroethylene and kidney tumours, larynx cancer and asbestos, and sarcoidosis and dust exposure. Bonneterre concluded that the use of data mining methods for detecting possible new occupational diseases is promising and should be further studied.

New risks from existing forms of stress: breast cancer related to night shift work

Various scientific studies show an increased risk of breast cancer among nurses and flight attendants. For women who have worked at night and in irregular shifts over a long period of time, the risk of breast cancer is 1.5 to 1.8 times higher than for women who were not exposed to shift work.

A possible explanation is the disruption of the biorhythm as a result of light at night. It is known from animal experiment research that exposure to light at night decreases melatonin levels. Melatonin is important for the sleep-wake cycle, but also serves to slow down tumour growth. If less melatonin is produced, there is therefore less deceleration of tumour growth.

The first convincing studies date from 2001, and others followed later. In 2007, the International Agency for Research on Cancer (IARC) concluded: 'shift-work that involves circadian disruption is probably carcinogenic to humans' and included shift-work in its list of Group 2A carcinogenic agents. In Denmark breast

cancer in nurses with a long history of work at night is included in the list of occupational diseases.

This new link between work and health was identified through epidemiological research (cohort study among employees).

6.5 Special Topics

Nanosafety: under the Sixth Framework Programme FP6 and Seventh Framework Programme FP7 significant progress is being made both in nanotechnology and in its safety management. Thirty projects are either completed or running and represent a total RTD investment of €82.5m, from the NMP and other programmes, under FP6 (11 projects, €30m) and FP7 (19 projects, €52.5m). These projects together with a significant number of projects supported by government resources in the EU Member States and the FP7 associated states, and other projects addressing safety as a side objective, represent the valuable efforts of the scientific and industrial research community to progress greater understanding.

The recently published European NanoSafety Cluster Compendium gives an overview of the topic, and contains information on all of the projects funded under the Sixth Framework Programme FP6 and Seventh Framework Programme FP7. European NanoSafety Cluster Compendium 2011.

Stress at work. Work-related stress is recognised as a major obstacle to productivity in Europe; http://osha.europa.eu/en/publications/reports/TE-81-08-478-EN-C_OSH_in_figures_stress_at_work . The EU Parliament Resolution 2011/2147 (INI) deplores the accelerating growth of conditions and accidents caused by psychosocial problems among workers; recalls the incidence of suicide at work and the real impact that job insecurity has on the stress factor; regrets the unequal application across the EU of the Framework Agreement on Work-related Stress of 8 October 2004; calls on the Commission to take every necessary measure to ensure that this agreement is implemented in every Member State; and calls on the social partners to do more to increase awareness and understanding of work related stress among employers, workers and their representatives.

A European work-related public health report on Cardiovascular Diseases and Mental Ill Health (2007), http://www.enwhp.org/fileadmin/rs-dokumente/dateien/Hearts_Minds-Summary.pdf shows that cardiovascular diseases (CVD) and mental ill health are interrelated, and that mental disorders can be risk factors for CVD and vice versa. It shows that 6% of all CVD cases among men and 14% in women are attributable to job strain. Mental ill health is as much a risk factor for cardiovascular disease and mortality as the lack of physical activity or high cholesterol.

Combined job strain and insecurity, have a synergistic effect for depression odds ratios (Ors) 13.88 (5.67-34.01) and anxiety 12.88 (5.12-32.29). A focus on individuals or work organisations does not address job insecurity. For successful intervention it is necessary to engage individuals, workplaces and macro factors underlying contemporary work conditions (economic etc).

Shift work also appears to have considerable health impacts. It (2- or 3-shift) is associated with higher carotid intima media thickness and 2.2 fold odds for carotid plaque in young men 24-39 years of age, through an acceleration of the arteriosclerotic process. (Puttonen, 2009)

The WORKHEALTH project was supported by the European Commission within the Public Health Programme 2003-2008. A main objective of the project was to compile a European health report which reflected the impact of work on public health in Europe. Hearts and minds at work in Europe (workhealth@bkk-bv.de) is one of the products of this project with recommendations to policy makers to develop or influence policies and practices at an international, national, regional, local or company level. Workplaces are powerful settings for health promotion and prevention. Workplace health interventions are available and effective, and apply to non-working life as well; workplace health is an essential part of public health.

Electromagnetic radiation. Electromagnetic fields do not seem to be a topic of special interest in occupational disease policy, but it is much more debated in relation to public health policy:
http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_007.pdf

6.6 Inventory of activities on new work-related health risks at a national level

The issue of research priorities on occupational diseases, research on work related psychosocial disorders and research on new / emerging occupational risks is addressed and discussed in Chapter 2, based on the national reports. Table14 provides an overview of the issues.

Table 14: Overview of issues mentioned in the national reports

Research activities on new/emerging risks	Number of countries
Nanosafety	12
Stress at work/ mental health	4

Biorisks	2
Musculoskeletal disorders	2
Electromagnetic / terahertz radiation	2
Shiftwork	2
Allergies, Neurotoxic effects	2
Special exposed/ vulnerable groups	4
'No research because of lack of knowledge'	1

6.7 Example of good practice:

- **Active search for new possible cases:**
  - RNV3P network of clinics in occupational medicine in France with large database focused on detecting new associations like in pharmacovigilance using sophisticated methods like exposomes and GIS (Bonneterre, 2008);
  - National surveillance system for medical surveillance of workers with manufactured nano-particles (Boutou Kempf et al, 2011).

- **'Lost cases' of Occupational Disease**
  After discrepancies were observed in Italy between the number of officially reported cases of occupational disease and the number that could be expected based on epidemiological estimates, an active effort was made to find these 'lost cases' of occupational disease. The Institute for Occupational Diseases at the University of Milan initiated a project in cooperation with the Lombardy region in the context of the EU Recommendation. In addition to increased attention to occupational diseases in regular medical education and in the refresher and post-graduate training of GPs and medical specialists, information about 'lost cases' was gathered in various ways: linking databases on diagnoses and professions, research into special disease registries (such as the mesothelioma registry and the paranasal sinus carcinomas registry) and the identification of clusters. An example of this last approach is a study of a cluster of mesotheliomas in Sicily. This study revealed the causal role of fluoradenite, a mineral similar to asbestos.

- **Prediction of chemical hazards by modelling:**

  Computer-based prediction of chemical asthma hazard (Quasar). (Seed M, Agius R. Occupational Medicine 2010;60:115–120).

6.8 Conclusion and recommendations

The Recommendation has no specific focus on the detection of new work-related diseases. It would be helpful to add a statement to stimulate MS to take an active approach to identify and tackle new work-related health risks:

- communicate activities to EU-OSHA and strengthen the Agency as the occupational health vigilance centre;
- stimulate international cooperation / exchange of information;
- develop coordinated action on specific occupational health risks such as exploring the possibilities of medical surveillance of nano-workers as an early warning system;
- ensure a regular update of the European List of Occupational Diseases taking new work-related diseases on board.

The Scientific Committee on Occupational Diseases, suggested in earlier chapters, could have a role in relation to all these activities.

7 Good practice in the prevention of occupational diseases

7.1 Introduction

The aim of this chapter is to analyse and describe some of the examples of OD prevention activities reported by the countries participating in the project. Article 1.3 of Commission Recommendation (2003/670/EC) asks MS to develop and improve preventive measures and exchange information on best practice through the European Agency for Safety and Health at Work (EU-OSHA). Although the Recommendation uses the phrase "best practice", the more common concept, and that used as objective for this project, is "good practice", and this phrase is used throughout this report. The chapter begins with a reflection on the state-of-the-art concerning good practice in OD prevention in the participating countries (7.2). Section 7.3 is a brief presentation of the various drivers of occupational health and safety systems. The two that follow (7.4 and 7.5) outline the benefits of effective occupational health and safety management and the costs of ineffective management, respectively. Section 7.6 summarises the case studies reported, and 7.7 gives information on some more broadly-based national initiatives. Finally, sections 7.8 and 7.9 draw conclusions and make the necessary recommendations.

7.2 State of the art

The general use of a database of good practice, as an instrument to illustrate how policies are implemented effectively, is popular in the EU and worldwide, and there are many sources that allow free access to the respective databases. The need to share such practices is well recognised across the EU Member States. The primary role of EU-OSHA is emphasised by the Recommendation, and the Agency has been very active in developing its approach to the collection and dissemination of good practice information and case studies under the "Practical solutions" banner.

EU-OSHA publishes a very helpful guide to "Good practice information", which gives a summary of the current "state of the art": "The definition of 'good practice' varies between Member States due to the different occupational safety and health systems and legislation, culture, language, and different experiences. In addition, different groups with different interests and levels of knowledge have different points of view related to good practice at workplace level."

The guide explains that some MS stress the need for fulfilling statutory provisions in their good practice publications, while a Dutch Project used the term "successful solutions to occupational safety and health risks" rather than "good

practice information". This Project identified two types of information – "guidelines" which cover the full range of information available, both from sources in the form of guidance and other documentation, and "case studies", which show the actual application of control measures in enterprises.

The EU-OSHA guide also says that the following criteria have been consistently identified as necessary for a good practice solution:

- A reduction of the whole potential to cause harm to workers or other persons affected by the enterprise arising from an identified cause of harm
- an improvement of working conditions in general and should be effective in promoting health, safety and efficiency
- the achievement of a permanent and identifiable reduction in the risk of harm to workers.

Further, it should:

- demonstrate steps and methods that can be taken within a workplace or within an organisation to improve working/living conditions or/and reduce health and safety risks at enterprise level; focus where possible on preventing the identified risk at source
- be effective and ethically tolerable
- meet the relevant legislative requirements of the Member State in which it has been implemented (this may mean that the good practice information is not directly transferable between Member States)
- be current and relevant to intended users and existing work practices within the European Union
- contain sufficient information such that it can be applied where relevant to other European Union Workplaces
- include the strong involvement of all relevant parties; in particular those workers and their representatives who will be directly affected by the action taken.

Despite the comprehensive approach taken by EU-OSHA, in the course of this analysis it was found that no simple agreed definition of 'good practice' in OD prevention existed in participating countries. For that reason, and in order to better understand the succeeding parts of this chapter, the following working definition of 'good practice' in OD prevention was used:

'Any activity/intervention, directed either at the work environment or the employee, which has shown the desired effect and thus contributed in any way to OD prevention.'

It is a vital part of cooperation between countries and between stakeholders that good practice is shared, and that the communication of solutions is seen as just

as important as developing the solutions; in this way prevention action can be taken more quickly and resources will not be wasted.

7.3 Drivers of occupational health and safety systems

To understand OD prevention activities across the Member States, it is necessary to consider certain country-specific factors, which influence virtually all systems:

- capacities to deliver successful OHS interventions:
  - financial (e.g. economic incentives),
  - HR (staff composition of the systems, including insurance organisations, inspectorates, occupational health services, lobbies),
  - intellectual (e.g. support of scientific units and national inspectorates),
  - legislative (e.g. the number of laws and capacities to execute them),
- working cultures (e.g. social partners' views on health issues, employee attitudes and expectations),
- integration of OHS interventions with other activities (e.g. health surveillance, primary care provisions, etc.).

The extent to which these factors are present in any national OHS system defines its approach towards virtually all OHS issues. For example, in the more mature systems, sufficient capacity, a positive culture and an integrated approach mean that workers' health is perceived as an asset which should be taken good care of, so that the employees remain fit, production losses are minimised, and the employees enjoy life outside work. The approach to OD prevention is a function of the particular individual OHS system; primary OD prevention, where the aim is to prevent the onset of an OD by means of altering a certain factor, is likely to be more frequently observed in countries where the holistic approach towards OHS issues dominates.

7.4 The benefits of effective OHS management

The examples of good practice collected as part of this project and summarised later in this chapter clearly demonstrate the links between good, active management of ODs and good business management.

The current EU strategy confirms that: "The commitment to increase employment and productivity through greater competitiveness, which is central to the Lisbon strategy, requires an additional effort from all those involved to improve the EU's performance in the field of occupational health and safety. Occupational health

and safety plays a vital role in increasing the competitiveness and productivity of enterprises and contributing to the sustainability of social protection systems because it results in reduced costs for occupational accidents, incidents and diseases and enhances worker motivation. Occupational accidents and diseases represent an enormous financial burden for public and private social protection systems and require an integrated, coordinated and strategic response, as well as cooperation between the main parties involved in the European Union with regard to the development of Community and national policies."

The contemporary world view, expressed inter alia in the World Health Organisation 'Global Plan of Action on Workers' Health 2008-2017' , is that OHS management is a comprehensive and multidisciplinary approach which considers not only the working conditions of an individual but also his or her general health, psychosocial well-being and even personal development.

The experience of most successful European economies shows that workplaces designed in line with OHS principles are more sustainable and productive. The likelihood of achieving a healthy economy, as well as the maintenance of high quality production or services standards, is greater in countries in which workers' exposure to occupational risks and/or diseases is minimised. The practical experience of Western European countries indicates that the establishment of successful OHS systems and the development of healthy workforces is conditional upon several functional principles, which include:

- prevention of occupational risks and diseases;
- workplace health promotion;
- adaptation and adjustment of the working conditions to the worker,

  provision of and access to medical and rehabilitation services.

The successful implementation of such principles requires appropriate legal provisions and administrative enforcement, both of which may take some time to be developed. Nonetheless, the practical introduction of these principles into the developing OHS systems could trigger workplace changes that would eventually not only improve the control of occupational hazards, but would also help a more effective management of resources (e.g. workers' health) within companies.

7.5 Costs of ineffective OHS management

Occupational health and safety embraces not only the issues of individual workers, but above all is concerned with the problems of work and the work environment. The character of the former varies just as much as that of the latter, depending on, for instance, the type of economic activity, one's profession, the organisational structure of the company and its size. The underlying impact of ineffective OHS management however, seems to be that poor working conditions and/or environments (for example, ones that the employer and occupational

health service together give less attention to), make negative contributions to national development, aside from the detrimental effects on workers' health. In other words, it is a measure of an economic and social policy failure that would be largely preventable if appropriate OHS interventions were put in place.

Poor management of workplace health and safety can lead to work-related ill health and increase sickness absence, thus causing a significant, cost-driven burden on the economy. Financial losses, resulting from premature mortality and/or work incapacity induced by occupational health hazards, have been estimated to account for as much as 10-15% in some European countries. Another cause for concern, which may be much harder to quantify, yet is of similar significance, is the psychosocial impact that occupational diseases and/or hazards exert on individual staff and their relatives. Loss of contact with the world of work often makes people lose the skills and confidence in returning to work. However, the level of awareness of both direct and indirect costs of ineffective OHS management seems inconsistent within and between countries. In this context, particular, although not sole, attention should be given to countries which are yet to adopt the so-called 'comprehensive OHS approach'.

The case studies summarised below demonstrate how action can be taken to make management more effective, and lift the economic burden of ill-health.

7.6 Good practice examples

Of all (28) reports submitted, 19 included a total of 40 examples of good practice in OD prevention. A detailed examination of the examples revealed that the national reporters had, in general, a different understanding of the term 'good practice' in OD prevention. As a consequence, there was little structural overlap between the examples. In order to get a better understanding of the term, as well as to gain a deeper insight into the individual examples provided, the definition of 'good practice' in OD prevention, highlighted in section 7.2, was formulated. It should be noted however, that not all examples fitted the proposed definition; some case studies did not give sufficient information on goal, target group, actions, outcomes or other relevant aspects to enable their value to be assessed.

In an attempt to gain a comprehensive understanding of the 16 most helpful examples a comparative table was drawn up (table 16). This reveals that all of the examples were "case studies" within the EU-OSHA good practice framework, most of which were based on primary prevention activities aimed at the following, broad OD areas:

- musculoskeletal disorders and manual handling of loads;
- noise;
- occupational asthma.

Roughly half of these examples were generally targeted at a sector or at a

particular OD or group of diseases, and half at a specific workplace or group of workplaces. All achieved some reduction in the risk of ODs (a few are still being evaluated) and some improvement in the management of ODs. Most of the examples benefited from active participation by the social partners. Many demonstrated cost savings or improvements in productivity and many identified transferable approaches. One of the great challenges which EU-OSHA, the EC, and individual countries face is convincing stakeholders of all kinds that many of their actions are innovative and need to be shared; this section and the next may help alert stakeholders to the value of sharing good practice. The case studies are summarised in Table 16 below.

Table 15: Good practice examples

Field of OD impact	Country	Goal	Target group	Actions	Outcomes	Miscellaneous	Recommend-ation item No. (Art. 1)
CHEMICAL AND/OR PHYSICAL AGENTS	The Netherlands	control of chronic solvent-induced encephalopathy (CSE)	over 22 000 painters working in the construction industry	- series of legal measures and agreements introduced at sectoral level, -establishment of a CSE screening procedure	- 47 CSE cases diagnosed between '98 and '04 (only 1 in '03 and 0 in '04) - substantial reduction in the number of CSE cases in painters	- the screening programme stopped following its success	(6) DATA COLLECTION; (8) DIAGNOSIS
	Switzerland	minimization of employees' exposure to asbestos fibres	construction industry and trade workers	- amendment and strengthening of legal foundations, - awareness campaign launched	- fulfillment of the awareness campaign is being evaluated	N/A	(10) AWARENESS RAISING
	United Kingdom	improvement in the control of solder fumes	a group of solderers	redesign of hoods, - pilot of the new ones, - replacement of the old hoods with the new ones,	- exposure to fumes fell to an undetectable level, - increased awareness	- staff were involved in the processes, - staff opinions sought, - low cost, practical prevention	(3) PREVENTION; (10) AWARENESS RAISING
COMMUNICABLE DISEASES	Belgium	reduction of the incidence rate of hep B	healthcare staff	- facultative vaccination programme	- significant reduction in the number of cases observed between 1987 and 2010,	- activity paid by the national insurance Fund for ODs, - economically-beneficial investment	(3) PREVENTION; (6) DATA COLLECTION

Field of OD impact	Country	Goal	Target group	Actions	Outcomes	Miscellaneous	Recommend-ation item No. (Art. 1)
COMMUNICABLE DISEASES	Czech Republic	reduction of the incidence of communicable diseases	healthcare professionals	- vaccination programme	- reduction in the incidence of hep B cases from 79 in 1996 to 10 in 2010, - reduction in the incidence of TB cases from 20 in 1996 to 5 in 2011,	- cost-benefit analysis not calculated	(3) PREVENTION; (6) DATA COLLECTION
MANUAL HANDLING OF LOADS	Cyprus	reduction of the manual handling of loads	workers of a chemicals' production plant	- introduction of devices that aided the handling, lifting and transferring of barrels of excess weight (> 200 kg)	- increase in productivity levels, - reduction in the risk of barreled chemicals' spillage	- potentially transferable solution	(3) PREVENTION
	Ireland	reduction of physical effort from the manual handling of patients	a group of care assistants	- risk assessment carried out, - application of a hoist, - workers guided as to how to safely maneuver the hoist	- physical effort reduced,	N/A	(3) PREVENTION
MUSCO-SKELETAL DISORDERS	France	prevention of musco-skeletal diseases with the use of MUSKA tool (www.muskatms.fr)	employees (< 20) of a wine production business	- workers' postures and angles analyzed with the use of computer software and scored against scientific data, - solution proposed (i.e. a seat)	- all workers agreed to the solution	- priorities for action identified, - active participation of the workers and management, - practice combined with science	(3) PREVENTION; (7) RESEARCH

Field of OD impact	Country	Goal	Target group	Actions	Outcomes	Miscellaneous	Recommend-ation item No. (Art. 1)
NOISE	Cyprus	reduction of noise from the discharge of metal pipes	workers of a metal pipe industry	- installation of a system of thick rubber strips on top of the metal pipes resting in the collecting trough	- ca. 16 dB reduction of the impact of noise, - unaffected production capacity, - hearing risks eliminated	- cheap (ca. € 500), transferable and easy to mount solution, - close cooperation of the whole staff	(3) PREVENTION
	Norway	reduction of the 'loud sound' effect	a group of 100 sound editors	- identification of not compatible software, - sound editing software changed	- 'loud sound' effect eliminated	N/A	(3) PREVENTION
	Switzerland	prevention of noise-induced hearing loss	all workers exposed to hazardous noise	- assessment of ear-protection equipment used by the employees and an elimination of outdated ones, - dissemination of noise tables for self-assessment of exposition to noise	- the share of people who revealed a slight or noticeable loss of hearing fell from 37% in 1973 to ca. 7% in 2009	- complex prophylaxis programme, supported by the use of 'audiomobile units', - widespread applicability; ca. 90% of companies use the noise tables, - uniformed data collection	(3) PREVENTION; (6) DATA COLLECTION; (7) RESEARCH

Field of OD impact	Country	Goal	Target group	Actions	Outcomes	Miscellaneous	Recommend-ation item No. (Art. 1)
NOISE	United Kingdom	reductions in 1) the exposure to occupational noise, 2) the risks of hand-arm vibration, 3) manual handling of loads	construction workers at the Olympic Stadium in London	- development of a wheeled jig	- noise and hand-arm vibration hazards significantly reduced, - physical effort minimized	- shortened job completion time	(3) PREVENTION
OCCUPATIONAL ASTHMA	Austria	minimization of exposure to flour in bakeries and a reduction in the number of occupational asthma cases	owners and employees of all small bakeries	- provision of on- site consultations to the owners and employees - provision of advice (technical and procedural) on the measures to be taken	NB. exact outcomes unknown, - creation and dissemination of very practical materials available online, - evaluation conducted and published as a .ppt document	- active involvement of the national labour inspectorate, - ongoing, active communications regarding the project,	(3) PREVENTION; (10) AWARENESS RAISING
	The Netherlands	reduction in the number of cases of occupational asthma and rhinitis	10 000 bakery workers	dissemination of knowledge concerning the exposure to workplace allergens, - establishment of a health surveillance programme,	- the benefits of the surveillance programme were calculated at € 44 659 352, - implementation of the covenant resulted in a net benefit of € 16 848 546 over 20 years of running,	- agreement upon a covenant between the government, unions and employers' organizations, -implementation proved cost-effective for all stakeholders,	(3) PREVENTION; (6) DATA COLLECTION; (10) AWARENESS RAISING

Field of OD impact	Country	Goal	Target group	Actions	Outcomes	Miscellaneous	Recommend-ation item No. (Art. 1)
OCCUPATIONAL ASTHMA	Slovakia	reduction in the incidence rate of occupational asthma	bakery workers	- provision of obligatory and facultative medical examinations and airway status measurements	N/A	N/A	(3) PREVENTION
'WOR ENVORONMENT'	Estonia	- improvement in the ergonomics of working conditions and equipment, - improvement of effectiveness and productivity of work, - prevention of tiredness, work injuries and sick leaves	dressmakers	- design of new work rooms (inc. a new ventilation system), with all equipment ergonomically tested, - armrests designed accordingly to individual needs	- decreased sick leave (ca. 42% throughout the 1 year intervention period), - increased satisfaction of workers with the new working conditions, - production effectiveness improved by ca. 12%, - sewing process was less strenuous	- participation of experts, - developmental costs: 2 000 000 Est crowns for the new work rooms and 145 000 Est crowns for the ventilation system - additional services provided to the workers (1 week massage treatment)	(3) PREVENTION

7.7 Broader national initiatives

In addition to the case studies summarised in the previous section, the project also identified a number of significant national initiatives which might normally be considered too general to be regarded as good practice case studies. However, they all demonstrate good practice in the development of national policies, in the improvement of national and international data, or in driving positive change in the way that action is taken in relation to occupational diseases. All can inspire other countries, other sectors and other stakeholders to learn from these examples, and share their own experience. Five of these examples are summarised below.

Title: SafeHair2010- Common Health and Safety Development in Professional Hairdressing in Europe.

***Country**:* Germany

Issue: Hairdressers are exposed to a number of chemical and physical risks all of which make them more susceptible to occupational skin diseases. Additionally, no agreed health and safety standards were previously set for this industrial branch.

Aim: Prevention of skin diseases in the hairdressing industry.

Actions:

- provision of workshops to the industry's stakeholders (employee and employer organisations and trade representatives);
- development of an online and paper-based questionnaire for the respective professionals;

Results:

- provision of recommendations for the vocational training curricula of professionals working in the hairdressing industry;
- adoption of the Declaration of Dresden.

Why is this practice noteworthy?

- it supported the development of a common health and safety standard for the European hairdressing industry.

Learn more from: www.safehair.eu

Title: Preventing occupational stress in student nurses, Italy

***Country**:* Italy

Issue: Training programmes for nursing students were very demanding as they covered both theoretical aspects and a significant amount of practical training in hospitals and clinics. Research on stress and burnout in trainee nurses suggested their perceived stress was very high. This was coupled by a lack of proven preventive strategies.

Aim: Prevention of occupational stress in student nurses.

***Actions*:**

- provision of questionnaires to 128 first-year nursing students;
- provision of a traditional training programme to the control group (62 students);
- provision of a six-month stress prevention programme, e.g. via group discussions and individual specialist assistance to the test group (66 students).

Results:

- clear improvement between the beginning and end of the six-month training period;
- the programme mostly benefited the group of students that was in the biggest need of it;
- the test group, in general, showed improved overall health scores;
- supervisors' roles were highly appreciated by the students.

Why is this practice noteworthy?

- it targeted an emerging occupational disease issue at an early stage;
- it is transferable to other countries.

Learn more from: http://osha.europa.eu/en/publications/reports/TE3008760ENC

Title: Reducing musculoskeletal load in a fishing enterprise

Country: Poland

Issue: Awkward postures, repetitive manual handling and high musculoskeletal loads were required to transfer fish from a brine container to an open work box. Further manual handling was required to transport boxes of fish to a weighing and packing station using a manual pallet trolley.

Aim: Reduction of employee musculoskeletal load and prevention of musculoskeletal diseases.

Actions:

- installation of a mechanical tipper in order to eliminate workers' necessity to pick up the fish (during draining)
- introduction of an automated brine draining line and a conveyor belt to transfer the fish around the plant.

Results:

- significant reduction in workers' necessity to handle the fish manually (i.e. in a sieve)
- primary prevention of musculoskeletal disorders
- improved capacities to handle greater amounts of fish.

Why is this practice noteworthy?

- it responded to the needs of the staff;
- it can be applied to other sectors of the industry (e.g. the processing of fruits and vegetables).

Learn more from: http://osha.europa.eu/data/case-studies/reducing-musculoskeletal-load-in-a-fishing-enterprise/view

Title: 'Got a good idea?'- college students solve physical workload problems

Country: The Netherlands

Issue: Young people with jobs in the agriculture or horticulture sectors were exposed to physically demanding work which required, for example, pushing and tipping a full wheelbarrow in loose sand or manual offloading of sand from a lorry.

Aim: Prevention of workplace hazards in the two sectors through active involvement of college students in the design of innovative solutions.

Actions:

- provision of a training programme to over 300 students
- students' assessment of workplaces
- development of solutions (team-working) to solve the problems of physical workloads
- competition with the best entries
- provision of ongoing support to the students.

Results:

- the students were educated about the physical strains of their work
- 42 competition entries submitted, of which 19 were judged 'excellent' and further discussed with occupational health and safety consultants
- some of the solutions were highly appreciated by the employers and implemented in practice.

Why is this practice noteworthy?

- it made the students look at real-life situations and recognised the potential of students to think of the best solutions;
- it was tailored to the target group in that it appeared attractive and challenging for the students;
- it gained a high interest from colleges, which insisted that the project was repeated the following year as it met with considerable enthusiasm.

Learn more from: http://osha.europa.eu/en/publications/reports/GPB06/view

Title: The Cancer Burden Project

Country: United Kingdom

Issue: Large numbers of workers are exposed to occupational carcinogens (e.g. mineral oils, electromagnetic fields, silica, asbestos, etc.). In order to prioritise actions and develop practical measures to tackle the problem, a sound evidence base was needed by the HSE.

Aim: Production of estimates (both current and future) for occupational cancer burden in the UK.

Actions:

1st phase:

- estimation of the current occupational cancer burden (as per the following cancer sites/types: bladder, leukaemia, lung, mesothelioma, sinonasal and non-melanoma of the skin)
- refinements to the original methodology and re-evaluations of the respective exposures were then undertaken and a report was published in April 2010;

2nd phase:

- examination of future cancer burdens;
- methodology report, will illustrative case scenarios, published in April 2011;

Results:

- development of a measure (i.e. the attributable fraction (AF)) to determine the current occupational cancer burden
- provision of base-line measures for future estimations of occupational cancer burden;

NB. Final report is yet to be published by the Health and Safety Executive.

Why is this practice noteworthy?

- it is the first project to quantify in detail the occupational cancer burden in the UK;
- it has a great relevance for future EU prevention activities in the field of occupational cancer;
- it is notable in the context of EU priorities because it disaggregates male and female statistics.

Learn more from: http://www.hse.gov.uk/research/rrhtm/rr595.htm

7.8 Conclusions

In the course of the analysis, it was observed that many innovative activities have been undertaken, carried out at various levels and across different countries. They also show that there are many areas where good practice in OD prevention can be applied.

It was however difficult to be sure about the extent to which these examples reflect the current health needs of the individual populations living in the participating countries. Likewise, it was difficult tell the extent to which these good practice examples correspond to the nationally set research priorities. It should be emphasised however, that such an approach offers a practical platform for linking 'the science' with 'the doing' and may make this approach a more successful one, which may help inform future actions.

7.9 Recommendations

Further efforts should be made to link any plans to implement good practice approaches with the occupational risks that cause greatest burden among the working populations of individual countries, or at the micro level, local authorities or single enterprises. Likewise, attention should be paid to the non-traditional OD areas for which 'good practice' examples are needed , such as targeting psychosocial phenomena such as bullying, harassment, and burnout. In addition, Member States should be encouraged to follow existing guidelines and design their own good practice in the most informed way and efforts to disseminate the current practice of OD prevention should be given greater importance and strengthened via, for instance, the creation of thematic websites.

All these recommendations emphasise the need for all countries and all stakeholders to support the work of EU-OSHA in identifying and communicating practical solutions to the wide range of occupational disease challenges.

8 The objectives of the project: synthesis of the analysis and conclusions

8.1 Introduction: Occupational diseases in the new labour world

Occupational diseases are health problems caused by exposure to a workplace health hazard. They typically result from exposure to dust, gases, fumes, noise, vibration, toxic substances, abnormal temperatures or pressures, heavy workloads, stress at work, etc.

In its Communication COM (2007) 62 final of 21 February 2007: 'Improving quality and productivity at work: Community strategy 2007-2012 on health and safety at work', (hereafter referred to as the current strategy) the Commission acknowledges the importance of effective occupational health and safety policies to ensure that economic costs of problems associated with work-related ill health will not inhibit economic growth and affect the competitiveness of businesses in the EU. The Commission concludes that occupational illness and accidents at work still are a heavy burden on both workers and employers in Europe. It also notes that progress in prevention and reduction of occupational injuries and diseases remains uneven across different countries, sectors, companies and categories of workers.

Consequently, measures aimed at reducing the long term burden of occupational diseases and work-related ill health are needed, irrespective of any economic considerations in the perspective of Member States' authorities or employers.

The European Commission has for many years been working in the field of occupational diseases to encourage preventive measures and promote national frameworks that allow for successful compensation claims. Recommendation 670/2003/EC (hereafter called the Recommendation) touches on some aspects of these problems.

As innovation and technical progress may enlarge the number of workplace hazards and risks there is a need to address these issues as they may be at the origin of 'new' occupational diseases or work-related ill health.

8.2 Aim of the report

In the current strategy the Commission also said that it intended to evaluate the measures taken in response to the Recommendation. This aim is the basis of the project reported here. The main objectives of the project were:

1. To describe the degree to which Commission Recommendation 2003/670/EC, its Annexes and associated documents (Diagnostic

criteria guidance) have encouraged national systems to tackle the problem of occupational diseases;

2. To clarify the processes of decision-making in Member States for inclusion of occupational diseases into national lists, including the role of various stakeholders (government, social partners, scientific community) and the criteria and procedures applied;
3. To gain insight into the opinions and suggestions of relevant national stakeholders (e.g. social partners, social insurances, epidemiological and statistical experts). These evaluations may be relevant as to the content, structure and implementation of the EU system (Recommendations), current national systems and their implementation, etc.;
4. To describe "good practices" in the prevention of occupational diseases, including analysis as to cost benefit aspects (provided that "national" information is sufficiently available and valid);
5. To present and discuss a series of options on how the 'occupational diseases system' as currently run by the EC, could evolve and why.

The information collected to fulfil these objectives was based on desk research, reports provided by national experts (based on documentation and interviews with stakeholders), and documentation from international organisations (ILO, WHO, ISSA) and from EU organisations (e.g. EU-OSHA). The large cross-national variations in policies, activities and availability of information on the Recommendation topics meant that a full overview could not be provided for each country. However, for most countries, an adequate picture of the current pattern of implementation of the Recommendation could be obtained. The findings in relation to the objectives are presented here, and further context and analysis is given in the Annex to this chapter, which is a critique of the current Recommendation.

8.3 Objective 1: How countries have tackled the OD problem since 2003

As an introduction to the first objective we sketch the developments in the areas covered by the Recommendation: recognition, compensation, prevention, target setting, reporting and recording, epidemiology, research, diagnosis, statistics and awareness-raising. Full details are given in Chapter 2 and in the national reports.

Main findings

Recognition

Twenty-six out of 29 countries have a list of occupational diseases for the purposes of recognition and compensation. Since 2003 changes have been made in the content of all national lists (with the exception of 5 countries). In 12

countries these changes included the adoption a new list of occupational diseases. Five countries brought their list into line with the European list (in both its structure and content), or even transposed the European list directly into their national legislation. The newly recognised occupational diseases include mainly: diseases caused by asbestos dust, musculoskeletal disorders and cancers. Moreover, numerous countries have modified the criteria for recognition of diseases already included on their national list.

Compensation

Twenty-three countries have specific benefits for accidents at work and occupational diseases. Except for Sweden, in those countries that do not have a specific system of compensation, a temporary loss of ability to work is covered under the general health insurance regime, while disability and death are covered by the relevant disability or pension insurance provisions.

In a minority of countries (12) there were changes in the compensation system; these changes were of a limited nature and dealt with benefit levels (e.g. taxation, calculation formulae), changes in provisions (support, rehabilitation) or administrative issues.

Prevention

The great majority of countries (19 out of 29), have established a policy for the prevention of risks that could cause an occupational disease, as listed in Annex I to the Recommendation.

Twenty-two have set risk prevention priorities, which primarily are focussed on musculoskeletal disorders. Other priorities are: exposure to hazardous substances, noise, respiratory allergies and asbestos exposure, and skin diseases. The prevention of new risks is also explicitly mentioned in many countries, targeting in particular psychosocial risks (stress, burn-out, mobbing/bullying, violence, etc.), or nanotechnologies. Prevention policies also include broader, cross-sector approaches such as the correct use of personal protective equipment or helping SMEs establish risk prevention policies.

Target setting

The reaction to establishing quantified objectives aimed at reducing rates of recognised illnesses differs between countries. While some countries report that target-setting has helped the development of OD policies, other countries report that target-setting interferes with the need to combat under-reporting (and hence under-recognition) of occupational diseases. In several countries it was noted that prevention campaigns may firstly lead to an increase in notifications of suspected occupational diseases. Some countries have instead set "leading goals" such as reducing the number of people exposed to certain risks, or "secondary goals" such as reducing absenteeism due to certain occupational diseases. The main occupational diseases or risks covered by these objectives, whether quantified or not, are musculoskeletal disorders, hazardous substances and noise. Most countries also point out that the long latency periods for many

ODs inhibit short-term target setting, and that accurate statistics are vital to monitoring progress in disease reduction.

Recording and reporting of occupational diseases

There is a great diversity of recording systems, which fall into two main categories: those based on claims for recognition and compensation administered by social security, and those based on an independent system. Most countries use the first system; other countries come under the second, and in a number of countries there are several registers of both types (e.g. FR, IT, UK).

Almost all countries struggle with the problem of under-reporting of occupational diseases. The causes mentioned include: lack of knowledge, information and motivation among doctors (especially general practitioners); the bureaucracy of the system; the scale of benefit; pressure from employers causing a lack of independence of occupational physicians; the worker's fear of the consequences of a report for their job; and the scale of undeclared work in any country has a major influence on the applicability and use of the reporting system.

Measures to improve the quality of reporting may include the payment of a fee to the general practitioner for each case of a disease, of potentially work-related origin, that is reported. Awareness-raising and information initiatives intended for doctors may help and having online reporting procedures may encourage reporting. But measures of a coercive nature were also mentioned by four countries: a fine is planned for doctors who fail in their obligation to report all cases of diseases, of potentially work-related origin.

Epidemiology

There are multiple sources for epidemiological data on work-related health risks. They include: standardised data on suspected and recognised occupational diseases, standardised data from other social security sources (health, retirement, unemployment insurance), data from workplace-related screenings and physical examinations, exposure assessments, workplace-related general surveys and specific epidemiological studies.

Nine countries seem to use the whole armoury of potential sources of epidemiological data concerning workplace-related health risks. However, In about half of the 29 countries no system exists at present for the collection of information or data concerning the epidemiology of occupational diseases listed in Annex II or any other disease of an occupational nature.

Research

Research priorities could only be identified when a sufficient research infrastructure was in place in the country concerned and was sufficiently known to the author of the national report. This was not the case in all countries. No explicit research priorities were stated for 12 countries and for most other countries it was not very clear from the national reports whether actual research

was considered a priority, or whether research priorities were decided by formulating a plan for a certain research period. Only for France and Norway was it apparent that the research priorities were defined by a plan.

In most countries no national plan to promote or coordinate OSH research priorities seems to exist. MSDs, dermatitis and psycho-social issues are prioritised research areas in at least seven countries each. Only three countries mentioned as priorities, research on the effectiveness and efficiency of workplace prevention and OSH delivery. In 23 countries research on work-related illnesses of a psychosocial nature had been newly developed or intensified since 2003. And in about half of the countries research is carried out in the field of emerging or new occupational risks and the potential risks associated with nanoparticles were most often mentioned.

Diagnostics

The Recommendation asks Member States to ensure that aids to diagnosis are widely disseminated. This means supporting good quality diagnostic tools and improving skills. In many countries, the main tools to aid the diagnosis of occupational diseases come from the insurance organisations, and include handbooks, guidelines and protocols. These tools are regularly updated to reflect changes in the national systems of recognition of occupational diseases.

In addition to, or in place of, insurance-related diagnostic tools, other organisations can be the providers of such tools: societies of occupational medicine or scientific expert groups of various medical sectors, ministries of health or social affairs, etc, and the "Information Notices on Occupational Diseases" is used directly or helps inform the national guidelines in many countries and a significant number of countries use the expertise and experience of other European countries.

Statistics

Reflecting the under-reporting issue, the statistics on occupational diseases show various weaknesses. The reliability of statistics varies considerably across Member States. The main problems include: variations in concepts (recognised cases or reported cases); under-reporting of occupational diseases due to variations in reporting practices; and variations in recognition systems such as the content of national lists and the recognition criteria (including the specification, or not, of intensity of exposure). The nature of a country's economic activities (agriculture, industry, services) can also affect the number and the typology of the occupational diseases reported and recognised.

Awareness-raising (in the health care system)

In the period 2003-2010, most countries (n=20) undertook or planned (n=2) awareness-raising activities. Training of OSH specialists, providing additional qualifications for primary care providers and issuing practical guidance on OD were the most mentioned activities. Awareness-raising campaigns at the state level were carried out by five countries.

Conclusions in relation to objective 1.

It is important to emphasise that it is very hard to measure directly the impact of the Recommendation on the occupational disease systems of the various Member States. The findings show great European vitality in the area of occupational diseases, especially in the States that joined the European Union recently. In those countries in which the system of prevention, registration and compensation for occupational diseases is long-standing, the changes observed have led to a continuing improvement in standards, but do not converge toward a common European system.

Firstly, it can be concluded that since 2003:

- Action has been taken in many countries in relation to a few of the Recommendation topics, namely "recognition", "prevention", "recording and reporting";
- To a lesser extent activities have also taken place in relation to "diagnostics", "awareness raising" and "target setting". The philosophy of target setting is not universally supported, and under-reporting seems to be a main barrier;
- The topics in which comparatively fewer activities or changes were noted, due to national approaches such as benefit arrangements and research infrastructure, were "compensation", "epidemiology" and "research".

Secondly, it was reported that several "new" EU members made use of the EU lists to reform their system; for many of these countries, the lists of occupational diseases in Annexes 1 and 2 of the Recommendation proved to be useful reference tools.

Thirdly, quite a lot of activity has taken place in different countries and at EU level on the recognition and prevention of MSDs and psychosocial work-related diseases.

8.4 Objective 2: Decision-making for inclusion of occupational diseases into national lists

This section covers the decision-making process for inclusion of a disease in the national lists of the 29 participating countries (and see chapters 2 and 3 for the full review). Of the 29 countries, 26 have a national list of occupational diseases. The Netherlands, Iceland and Sweden do not have a national list of ODs. In Sweden, individual cases in which there is a suspicion of an occupational disease are decided on the basis of general criteria. In the Netherlands and Iceland, (and in four other MS which have a list, but no specific OD compensation system) occupational diseases are not recognised and compensated through a workers' compensation system but come under the health insurance regime, while disability and death are covered by the relevant pension insurance provisions.

Conclusions

The aim of the recognition process is the acceptance or rejection of the causal relationship between a disease and work-related influences, and is made difficult because of the complexity of the medical, technical, administrative and legal aspects. There are a number of factors to be taken into account:

- it is usually a governmental responsibility to take the initiative in starting the recognition process or involves a scientific or broadly based committee or board; in some countries individuals can start the process;
- in all but a few countries, the government is responsible for managing the process, and for deciding on the admission of the disease/diseases into the national list;
- in most countries a scientific committee or advisors are consulted;
- the social partners are consulted in all countries;

The main differences between countries relate to the nature of the process. In some countries (for example, Germany) the key aspect seems to be a scientific discussion around whether the legal criteria are fulfilled by the actual scientific knowledge, with consultation of the social partners and political parties afterwards. In some other countries (for example, France) the key aspect seems to be the political discussion between the social partners and the government, on the basis of scientific advice.

The lists of some countries have a long history, with entries made decades ago, and in some lists the diseases differ in the certainty of a causal relationship. The information provided in the National Reports indicates that there is no consistent definition of a causal relationship across all participating countries. In some countries a two-fold risk is associated with the existence of a causal relationship while some Member States accept lower attributable risks as causal in some circumstances.

It is not clear which criteria are used in some Member States for including a new occupational disease in the list. However in the UK, the permanent scientific committee publishes its criteria and all its reviews, including those which have led to the removal of occupational diseases from the list. It is worth noting that no key criteria are published for the Recommendation list.

In some countries new recognition criteria (whether occupational criteria or exposure criteria) may be added. If rare relationships are not covered by the national lists, many countries allow confirmation of such individual cases under specified criteria, which may qualify their disease also as occupational, and therefore eligible for compensation.

The products of decision-making: the national and EU lists

This section covers the analysis of the national and EU lists (and see Chapter 4 for an extended overview).

It should be remembered that the national lists are components of the national legal systems. The potential for harmonising the national lists depends on the

characteristics of these different legal systems (for example how they deal with employer's liability or workers compensation).

Conclusions

Four categories of countries have been identified, based on the type of national list system :

- Two countries with no OD compensation system, so with no national list, no specific compensation of OD, and compensation only by employers' liability (IS, NL);
- One country with a very open compensation system of ODs with no national list (SE);
- Thirteen countries with mixed systems with a national list and a complementary clause, and/or compensation through employers' liability;
- Thirteen countries with closed systems with a national compensation list, no complementary clause reported, with some differentiation in detail.

While some "new" Member States report significant changes in the characters of their new national lists they all report that they are similarity to the EU list, which seems to have been helpful to new MS trying to fulfil EU membership conditions in this field. In 12 Member States the national lists and/or the OD system regulations have been renewed substantially and in another 10 countries the lists have been changed in some parts and/or some new OD have been included). No relevant changes taken place in five participating countries, but in most of these countries changes are under discussion. In all countries having a list there is a trend to include new ODs. Only in the United Kingdom have ODs been removed from the list because they are no longer relevant.

8.5 Objective 3: Positions of national stakeholders

This objective related to the opinions and suggestions of national stakeholders (e.g. social partners, social insurance associations, epidemiological and statistical experts). Their evaluations may be relevant to the content, structure and implementation of the EU Recommendation, and current national systems and their implementation. Chapter 5 gives a full account of the findings on this question.

It should be explained that in many countries, a large panel of stakeholders was consulted but not all of the institutions expressed views on all the different aspects of the Recommendation.

Main findings

EU list

Stakeholders have varying opinions: many indicate that the European list has or has had a positive influence on the development of their own list; whereas other stakeholders (in the same or other countries) indicate that there has been no impact. In a few countries some stakeholders apparently do not know the existence of the European list. Social partners in general think differently as to whether the European list should have a more binding legal force and trade union representatives and some others are in favour of greater standardisation of the national lists of occupational diseases. National governments are usually in favour of the status quo. Several stakeholders note that a compulsory common base would be very useful to help cope with the problem of migrant workers suffering from an occupational disease.

It should be emphasised that these views were mainly expressed in the context of the EU list forming the basis for compensation systems, rather than for prevention systems.

National lists

In many countries there is a relative consensus concerning the content of the national list of occupational diseases, although generally stakeholders want the list to be better adapted to the reality of today's working world and to be updated regularly. Some stakeholders – mainly trade unions – want "new" diseases to be registered, such as mental illnesses, vertebral disorders, MSD and some cancers.

Compensation

In the majority of countries there seems to a relative consensus among stakeholders regarding the system of compensation for occupational diseases. However, some differences of view are mentioned, which vary between countries. These include the treatment of multiple-cause conditions and of psychosocial and mental illnesses.

Many employer representatives believe there should be a move toward a system of individual appraisal and not a presumption of occupational origin for psychosocial and mental illnesses; in several countries, trade unions complain that it is in practice hard for the victims of certain occupational diseases to obtain compensation. Other matters in discussion among stakeholders include financial issues (such as benefits index-linked to inflation); administrative issues (such as preventing the dismissal of an OD victim); the reduction of claim processing time; and a more transparent procedure for the recognition of cases.

Recording and reporting

Relatively few stakeholders specifically expressed an opinion on the procedures for reporting occupational diseases in force in their country. On the other hand many also recognise the under-reporting of occupational diseases. Stakeholders

in most countries suggest "conventional" solutions to the problem of under-reporting, such as more training for occupational physicians, specialists and general practitioners, and better information for workers and healthcare services (especially hospitals). Stakeholders of some countries would like the reporting systems to be simplified, and/or online reporting introduced. The role of occupational physicians or occupational health services could be made more effective.

Prevention of occupational diseases

Numerous policy reform suggestions have been made by stakeholders; they can be summarised in five categories:

- Changing priorities in occupational disease prevention (e.g. more focus on MSDs, occupational asthma, or new occupational diseases;
- Developing and improving information and communication on occupational diseases prevention (e.g. by using national information campaigns, or training on risks for workers);
- Developing better coordination between the key stakeholders for prevention such as the social partners, labour inspectorate, (occupational) health care, and rehabilitation services;
- Adapting prevention approaches, e.g. by better inclusion of SMEs and the self-employed, and introduction of financial incentives for employers to stimulate prevention;
- Increasing the role of occupational health services and physicians, including important issues such as training, and legal protection to allow them to do their jobs without fear of sanctions by employers.

Target setting for prevention

Stakeholders in several countries agree that prevention targets are relevant, although under-reporting and other factors may blur the validity of targets for occupational diseases. In ten countries stakeholders agree on the targets set at national level regarding the prevention of occupational diseases. In only 3 countries were the targets set through a participative approach with social partners (BE, DK, UK).

A number of countries are not inclined toward quantified targets: Swedish employers would rather have ambitions than fixed targets, and Swiss trade unions would prefer qualitative targets. The Norwegian Labour Inspectorate is currently working on improving the reliability of data in order to be able to monitor and assess targets set. Over the last few years the UK has largely moved away from quantitative targets towards an array of "destination goals" which include a number of leading indicators.

Conclusions

The level of awareness of the stakeholders on the different aspects of the Recommendation varies significantly, depending on the topic. They usually know

quite well their system of recognition of occupational diseases (if there is a national list) and the compensation system. Stakeholders also often have a good knowledge of the national prevention policies in relation to occupational diseases in their countries. This is less true for more technical aspects such as reporting and recording systems for ODs, which are often poorly documented; stakeholders are not involved to the same extent, but were still able to see the problems of under-reporting of occupational diseases in their countries.

Social partners often have divergent opinions on priorities in relation to recognition (of new occupational diseases), standardisation of lists, benefit levels, prevention, and multiple-causality of occupational diseases. With some exceptions trade union representatives seem to give greater support to a more harmonised EU-wide approach with EU-wide lists of occupational diseases (with a more legally binding status) than do employers' representatives.

8.6 Objective 4: "Good practice" in the prevention of occupational diseases

This objective asked for a description of good practices in the prevention of occupational diseases. This section describes the general approach to "good practice" and gives specific examples, based both on approaches or projects presented in national reports and on cases documented by the European Agency for Health and Safety at Work (EU-OSHA). The Recommendation asks Member States to develop and improve preventive measures and (specifically) to exchange information on "best practice" through EU-OSHA. It should be noted in passing that "good practice" and "best practice" are not necessarily the same, but for the purposes of this project they have been treated as such. Chapter 6 gives a fuller description of the topic.

EU-OSHA recognises that the definition of 'good practice' varies between Member States due to the different occupational safety and health systems and legislation, culture, language, and different experiences and this variation was demonstrated in the national reports. The EU-OSHA guide also describes criteria that are considered as necessary for a good practice solution:

- A reduction of the whole potential to cause harm to workers or other persons affected by the enterprise arising from an identified cause of harm;
- An improvement of working conditions in general and effective in promoting health, safety and efficiency;
- The achievement of a permanent and identifiable reduction in the risk of harm to workers.

The selection of cases presented in the national reports was very heterogeneous, for example in the selection of sectors, risks, interventions or tools, and applied outcomes. Many examples of good practice benefited from the participation of both social partners. As a general trait it was also noted that most cases were

reported to have demonstrated cost savings, but specific information on cost/benefit aspects were not included in most descriptions.

Conclusions

From the examples analysed, and taking into account experiences at EU-OSHA, further efforts should be made to link any plans to implement good practice approaches with the occupational risks that cause greatest burden among the working populations of individual countries. Attention should be paid to the non-traditional OD areas for which 'good practice' examples have only recently emerged, but which already have a big impact (for example targeting psychosocial phenomena such as bullying, harassment, and burnout). In addition, Member States should be encouraged to build upon existing guidelines and design their own good practice solutions, which should be provided to EU-OSHA so that the Agency can identify examples which may have broader international relevance and communicate practical solutions to the wide range of occupational disease challenges. Finally, efforts to disseminate the current practice of OD prevention should be given greater importance and strengthened via, for instance, the creation of thematic websites.

Continuous changes in work and working conditions give rise to new occupational health risks and the possibly to new occupational diseases. So before considering options for a possible change of approach on how to manage the several aspects of occupational diseases management EU wide, we firstly have to consider future challenges, in particular the development of new risks (as they may introduce new work-related or occupational diseases).

8.7 Objective 5: Options

This objective is covered in detail in Chapter 9, the final chapter.

8.8 New work-related hazards

Although this topic was not a specific objective, it was agreed that because of its importance to the future of the Recommendation as a whole, and to the relationship between Annex I and Annex II, it would be examined as part of the project. Chapter 7 is devoted to new work-related diseases, ways of identifying them, priorities in participating countries and suggestions for OD policy. New work-related diseases may include:

- new diseases due to changes in work and working conditions,
- new risks originating from known agents, or
- consequences of parents' occupational exposure on their offspring.

Conclusions

Detecting new occupational health risks requires different instruments from those used for monitoring known occupational diseases. The choice of instrument is determined by characteristics of the health problems, such as the nature, seriousness and the strength of the causal link with the possible cause. It is not possible to detect new occupational health risks using a single method; several complementary methods are required. Two major tools are:

a. the Sentinel case approach, which is comparable to analysing and learning from occupational accidents, which is now common practice in OHS management

b. Epidemiological studies and health surveillance. Well-designed epidemiological studies, facilitated by 'record linkage' between health outcomes and occupational data can be very valuable. Health surveillance of workers with potential risky exposures is another method and health surveillance in nano-workers might serve as an early warning system in this field.

Major activities at an international level are carried out by WHO (e.g. "New epidemics in occupational health"; "global burden of disease programme") and are included in the EU-OSHA Strategy 2009-2013. In the national reports the information on research priorities indicate that several countries focus on nanosafety, and other new risks investigated include work-related psychosocial disorders, biorisks, MSDs, and electromagnetic/terahertz radiation. Research requires an active approach to identify and tackle new work-related health risks. EU-OSHA could be strengthened as an occupational health vigilance centre, which could stimulate international cooperation, coordinated action and the exchange of information.

Annex: Critique of the Recommendation

As part of the project, a critical analysis of the Recommendation was carried out, to help understand where the context and detail might have changed since the Recommendation was drafted; where revisions for future effectiveness were needed; and where gaps might exist. This analysis is summarised here.

The "Recitals"

The recommendations listed in Commission Recommendation 2003/670/EC are preceded by the normal "Recitals" - that is the statement of reasons for the Recommendation.

The first and second "reasons" stress that Member States have made a great effort to comply with Annex I of the previous Recommendation, and that the greater understanding which has emerged since the previous Recommendation of the causes of occupational diseases should be incorporated into the new Recommendation.

Reason 3 mentions various aspects which could be improved to attain more fully the Recommendation's objectives "in relation to prevention and to the collection and comparability of data". Reasons 4 and 5 also focus on the (primary) prevention of occupational diseases, referring to the Community Strategy on health and safety at work 2002-2006. Reason 4 states that the Recommendation must be the principal instrument for prevention at Community level. This reasoning is very difficult to understand given the primary role in prevention of the Framework Directive and the directives made under it.

The fifth reason emphasises the importance of stakeholder participation in prevention policy.

Reason 6 stresses that "quantified national objectives should be adopted with a view to reducing the rates of recognised occupational illnesses". "Recognised" in this sense often means "liable for compensation". Reason (7) deals with the development of national policies and encourages the use of targets and targeting, although no mention is made here of rates of recognised illnesses.

The eighth reason stresses the possible role of the European Agency for Safety and Health at Work (EU-OSHA); and reason 9 the role national health care systems can play "in improving prevention of occupational illnesses". It is strange that no reference is made in the Recommendation to any other than 'national health care systems' in this respect whilst many Member States have a separate system of medical doctors specialised in occupational health both from a preventive and diagnostic perspective.

It is noticeable that most of the reasons in the Recitals are concerned directly or indirectly with prevention, rather than compensation, but that no reference is made to the Framework Directive 89/391/EEC on health and safety at work. While this was understandable in the context of the Recommendation issued in 1990, because the Framework Directive was only adopted in 1989, and the

subsequent specific Directives were adopted later, it is rather surprising not to find any reference to the arsenal of EU Directives on workplace health protection and prevention in the Recommendation of 2003. The reasons for this are unclear. It is also noticeable that, in contrast to the Recitals, the Article 1 recommendations are more concerned with compensation than with prevention. This dichotomy between prevention and compensation affects all aspects of the implementation of the Recommendation and making their Recommendation more coherent in this sense seems important for the future.

The detailed recommendations

Article 1 of the Recommendation includes 10 topics or 'recommendations', introduced by "Without prejudice to more favourable national laws or regulations, it is recommended that the Member States:"

We will deal with each of these recommendations and add a key word in order to make it easier to the reader, knowing that the key word may not fully cover the recommendations that are quoted in italics.

Recommendation 1 on recognition:

"introduce as soon as possible into their national laws, regulations or administrative provisions concerning scientifically recognised occupational diseases liable for compensation and subject to preventive measures, the European schedule in Annex I;"

This is the same wording as in Recommendation 90/326/EEC. Promotion of the European list of occupational diseases should indeed continuously be strengthened. But Member States are not required to include all diseases listed in the annexes to the Recommendation in their national lists. That this freedom of Member States is not challenged by the Recommendation is explained by the possible interference such an obligation may constitute with the compensation policies of the Member States, and thus with their own social security regulations. If we accept the sovereignty of Member States in that respect, there is still the need for taking steps forward in responding to the challenges constituted by an open labour market.

A first suggestion and minimal requirement in that respect is that Member States be obliged to argue why they do not include certain diseases into their lists as subject to notification and compensation. This might, without interfering with the ultimate autonomy of Member States to make their own decisions, constitute a key incentive to make their list more similar to the European Schedule, and thus result in a considerable reduction of the differences between national lists, this being the initial 'raison d'être' of the Recommendation on occupational diseases.

The second suggestion in this respect is related to the list itself. The list should obviously and regularly further be updated. Member States should be required to inform the Commission about any risk factors and working conditions and related diseases that they propose to include in their national list, and explain why. This may help the Commission to update the list whenever needed.

At the same time, the Commission should stimulate the identification of new working conditions which may lead to either new occupational diseases, or to a better understanding and recognition of possible causal factors of already-listed occupational diseases. This may speed up the adaptation of the list to possible causes of occupational diseases, rendering recognition easier. Exposure to risks related to nano-materials may be a relevant example in that respect.

Not only the diseases that are included in the European schedule but not on the national lists, and any newly recognised diseases should be subject to obligatory notification to the Commission, but also and most importantly the recognition (accepted as possibly subject to compensation) criteria. Even when Member States have similar lists of occupational diseases, the actual recognition of diseases may indeed vary considerably. While differences in compensation policy between Member States may be explained by tremendous differences in the whole and often complex institutional context of their respective social regulations, the same cannot be said about recognition as such, by which we mean: recognising the occupational and occupation-related factors causing or aggravating the disease or disease symptoms.

Within the EU, and from the point of view of consistency, it seems illogical that for the same exposure to the same substance causing heamatolymphopoietic cancers for instance, some types of heamatolymphopoietic cancers are recognised in one Member State while other types of haematolymphopoietic cancers are recognised in another Member State, and while none of these are recognised in still other Member States. In such cases it seems necessary for the Commission to understand the reasons why this is so, not necessarily with a view to enforce Member States to adopt the same recognition criteria, but at least to get a deep insight into the arguments used for the respective policies. This exchange may in its turn provide Member States with documentation that can be used as part of their national decision-making processes on recognition of occupational diseases. In order to reduce current discrepancies between the ways highly comparable forms of cancer associated with the same exposure factors are being dealt with, more research may be needed for recognition of a wider range of occupational cancers.

For these and other challenges related to recognition criteria setting, one should consider creating an expert group with representatives of Member States based on similar principles to the Scientific Committee on Occupational Exposure Limits (SCOEL) that uses recognition criteria sent in by Member States together with their own scientific background and evaluations with a view to elaborating guidance documents for recognition of occupational diseases, whilst still staying out of any possible consideration of compensation policies.

Finally, the criteria documents collected in this way may constitute a basis for EUROSTAT to develop step by step a reporting system that enables reliable and relevant statistics to be drawn up, allowing comparisons to be made between MS, with the proviso that the completeness of reported cases is ensured (see below).

Recommendation 2 on compensation:

"take steps to introduce into their national laws, regulations or administrative provisions the right of a worker to compensation in respect of occupational diseases if the worker is suffering from an ailment which is not listed in Annex I but which can be proved to be occupational in origin and nature, particularly if the ailment is listed in Annex II;"

This recommendation seems to refer to two problems:

One is a problem many MSs are confronted with: the problem of recognition of the occupational origin of diseases which frequently appear also in non-occupationally exposed populations but still have a higher incidence in occupationally exposed populations. The other one is the problem of conversion from the category of a suspected agent causing occupational disease to that of a fully recognised agent causing disease (shift from Annex II to Annex I).

The EU should make an inventory on how different MS have been coping with both these problems, with the aim of seeking innovative solutions. Here again, reporting obligations for Member States may constitute the best possible way forward.

There is a third challenge with respect to compensation: rehabilitation and reintegration of victims of occupational diseases, which may be costly and also constitute a kind of 'compensation'. The exchange of experiences between Member States could be very useful, and again the most effective way to realise this exchange could be the notification by Member States to the Commission.

Recommendation 3 on prevention:

"develop and improve effective preventive measures for the occupational diseases mentioned in the European schedule in Annex I, actively involving all players and, where appropriate, exchanging information, experience and best practice via the European Agency for Safety and Health at Work;"

This recommendation calls for specific preventive strategies for reducing the risk of occupational diseases listed in Annex I (not annex II) without making any reference to the general principles of prevention and the preventive strategies set out in the Framework Directive 89/391/EEC and the related individual Directives on health and safety at work. One may wonder why no such reference was made to these general prevention principles as a basic approach to the reduction of occupational diseases listed in Annex I. In so far as this preventive action refers to general risk reduction through improving working conditions, there is no reason why the Recommendation is addressing this item. The only place for such type of considerations is in the 'Whereas', thereby making reference to the existing acquis communautaire.

The above does not apply when it concerns rehabilitation/reintegration of victims of occupational diseases or particular preventive actions undertaken in the frame of compensation policies. These should be promoted in a new Recommendation.

Recommendation 4 on target setting:

"draw up quantified national objectives with a view to reducing the rates of recognised occupational illnesses, in particular those included in the European schedule in Annex I;"

This recommendation should cause worry. One should be careful with, and even avoid target setting on 'recognised occupational illnesses' using quantified national objectives for several reasons.

First of all, the impact of prevention can generally not be measured by the level of recognised occupational diseases. While this may be relevant for occupational accidents, where there is no time lapse between the failure of prevention and the occurrence of the accident, this is quite irrelevant for occupational diseases where the disease may occur even decades after the failure of prevention measures. Instead of setting targets in terms of reduction of occupational disease, detailed prevention strategies and measures should be formulated detailed prevention strategies and measures should be formulated for every sector or workplace where the risk of disease is present. Setting up campaigns for better prevention using concrete and accessible promotional tools and accompanied by medical surveillance with a view to detect even early signs of diseases listed in Annex I is the way to go. This may even lead to increasing the numbers of occupational diseases that are notified and /or recognised. Whilst being the result of increased efforts to tackle the problems, an increase in the number of cases could easily be considered as a proof of failure of current prevention policies in the context in which quantified national objectives are being drawn up.

Secondly, imagine that these targets are objectives that should absolutely be reached for whatever reasons, including political. In the light of the above, such targets may easily lead to policies hiding occupational diseases and thus be counterproductive, rather than increasing their detection and notification. Target-setting in the context of this recommendation should rather be related to improving the detection/identification of victims of occupational diseases. Any objective that may lead to not detecting or smuggling away occupational diseases may negatively affect not only compensation of victims but also the necessary measures of secondary prevention and workplace primary prevention. This may be called the 'disease first approach'. Developing effective structures of medical surveillance allowing detection of these diseases wherever they are likely to occur is crucial. This is complementary to the general risk assessment principles as regulated in the Framework Directive and the specific Directives, and cannot be neglected in a Recommendation on occupational disease recognition and compensation. Primary prevention will never lead to the total exclusion of all risks in all workplaces. The efficacy of medical surveillance systems allowing timely detection of work-related ill-health must be addressed in a new Recommendation. Similarly, for pharmaceuticals, vigilance systems exist allowing the identification of side effects that were not identified despite pre-marketing risk assessments.

A new recommendation should contain cross-border exchange obligations for any case of disease irrespective of where the exposure leading to the disease may have taken place, in order to guarantee that the information can be used for preventive purposes, especially to prevent the occurrence of more cases.

Recommendation 5 on recording and reporting:

"ensure that all cases of occupational diseases are reported and progressively make their statistics on occupational diseases compatible with the European schedule in Annex I, in accordance with the work being done on the system of harmonising European statistics on occupational diseases, so that information on the causative agent or factor, the medical diagnosis and the sex of the patient is available for each case of occupational disease;"

Correct and complete detecting of occupational diseases precedes reporting and is a goal to strive for continuously but which will never be met completely. Below, we consider that 'reporting' includes 'detecting'. In a new Recommendation this should however be made more explicit.

There are dramatic differences in the accuracy of reporting between Member States. It is important for every Member State to make a rough assessment of their reporting efficiency(taking into account the type of economic activities) when setting the roughly expected number of occupational diseases as a denominator, the numerator being the reported number of occupational diseases.

Member States should be required to do this exercise analysing in detail the weaknesses and strengths of their systems and identifying possible solutions for the identified weaknesses, and to report this to the European Commission. The material so collected may constitute a source of inspiration for Member States seeking solutions to their problems.

All possibly relevant aspects that, taken together, determine the efficiency and efficacy should be part of the assessment, like catchment population (and missing parts) of the existing notification systems, reliability and quality of the information being notified, etc.

In order for recording and reporting systems to cover as many as possible of the occupational diseases that occur, it is of utmost importance that no pressure is put, either directly or indirectly, on the worker or on the reporter not to report. The evaluation of this possible phenomenon should be part of the assessment as proposed here.

A new Recommendation should contain cross-border exchange obligations for any relevant information that may affect the right to compensation of an individual in as concrete way as reasonably achievable, in order to guarantee the right to compensation.

As said before in this chapter, EUROSTAT should provide criteria for notification of occupational diseases. This allows Eurostat to develop statistics in which similar diagnostic/exposure criteria are being used. But a second condition for having reliable statistics is of course to have sufficient completeness of the

reported cases in every Member State. The abovementioned obligation on Member States to analyse and notify the catchment capacity of their systems may provoke a dynamic in which the efficacy of the systems may improve step by step in all Member States. Both elements taken together will help EUROSTAT to finally produce reliable statistics.

For better recording of occupational diseases, a multi-source approach should be applied. Not only occupational physicians but for instance also medical specialists and the worker may be useful additional sources for identification and reporting. Good practices in that respect should be traced by the Commission and promoted.

Recommendation (6) and (7) on epidemiology and research:

"introduce a system for the collection of information or data concerning the epidemiology of the diseases listed in Annex II and any other disease of an occupational nature;"

"promote research in the field of ailments linked to an occupational activity, in particular the ailments listed in Annex II and the disorders of a psychosocial nature related to work;"

In order to improve the overview of research on ODs within and across countries, EU Member States should inform a body at EU level on ongoing and completed epidemiological research. A data base should be created allowing all interested parties to inform themselves about ongoing research.

Research results which are relevant to the diseases listed in Annex I and annex II should systematically be collected, and analysed for instance by the expert group as proposed in the above comments on recommendation 1.

At EU level research priorities should take more account of the issues regarding occupational diseases. It seems that occupational risks are less at the focus of research programmes that in the past, and definitely less than the topic deserves. Emerging challenges like the evaluation of health risks of employees related to nanomaterials, and the impact of working time schedules on hormone-related cancers are some of the topics that deserve intense research capacity.

Recommendation (8) on diagnosis:

"ensure that documents to assist in the diagnosis of occupational diseases included in their national schedules are disseminated widely, taking account in particular of the notices for the diagnosis of occupational diseases published by the Commission;"

The notices for the diagnosis of occupational diseases should systematically be updated, taking into account the divergent availability of diagnostic tools. The obligation of Member States to notify their criteria documents to the Commission may offer very valuable material for updating the notices.

This tool should focus on describing exposure situations and diagnostics, and thus constitute a guide, not only for all medical professionals confronted with

diseases possibly of occupational origin, but also for other than medical professionals to help raise awareness on possibly risky work situations and to provide an incentive to take preventive measures.

Given the fact that many occupational diseases only become manifest some time after the end of exposure, there is a need to document exposure history. This may not only make diagnosis easier after the exposure period, but also constitute a tool for prevention: one may think thereby of a general obligation to keep individual workplace files in individual medical records, at least for exposures with known or suspected risk factors. Such documentation might be considered as an output of risk assessment, the key element of EU Framework Directive and related specific Directives, the output of which may otherwise remain vague.

Member States should be requested to inform the Commission about how they identify exposure histories of employees, allowing exposure histories to be documented, possibly resulting in recognition and compensation of occupational diseases.

Systematic training to use the "Information Notices on Occupational Diseases, a guide to diagnosis" should be included in the curriculum of occupational physicians. The training of other physicians should include sufficient familiarity with this matter so as to promote systematic awareness of the possible occupational nature of diseases.

Recommendation (9) on statistics:

"forward to the Commission and make available to interested parties statistical and epidemiological data on occupational diseases recognised at national level, in particular via the information network set up by the European Agency for Safety and Health at Work;"

It is unclear why EUROSTAT is not mentioned under this recommendation. There should be clarity on the respective roles of EUROSTAT and the Bilbao Agency in this respect, and this should be addressed in the 'Whereas' of a new Recommendation.

Member States should be aware of the way other Member States present their statistics. They may be sources of inspiration. Here again, the Commission should take an initiative to get a set of minimal data on occupational diseases from every Member State, as a means of stimulating more relevant statistics on occupational diseases in many more Member States.

The above ambition goes hand in hand with the need for having a much more complete reporting of occupational diseases in all Member States. Exchange of information on this topic could be an important source of inspiration and encourage Member States to improve their systems.

Recommendation (10) on awareness raising:

"promote an active role for national healthcare systems in preventing occupational diseases, in particular by raising awareness among medical staff with a view to improving knowledge and diagnosis of these illnesses."

Above all, an active role for general practitioners should be promoted, in order to improve detection of occupational diseases. This is of particular relevance for employees who were never or are not any more under periodic surveillance by a specialised occupational health physician or other surveillance systems, through including in their training knowledge of conditions in which occupational diseases may be caused, and of their diagnosis, as well as of occupational health care systems, with a view to increasing cooperation. Of course, the same applies to specialists especially in branches where the impact on secondary prevention may be important, as is the case for instance with dermatology and allergology.

9 Options for the development of the EU intervention in occupational disease policies and suggestions for a new Recommendation

9.1 Possible options for an EU strategy

Introduction

There is an increasing need to improve EU and national policies on preventing and compensating occupational diseases. Four major reasons for this are:

- The continuing progress of technological development, which affects production processes and working conditions and may give rise to new work-related risks in most sectors and all MS.
- Outsourcing and subcontracting are nowadays inevitable elements of modern undertakings. This may globally lead to the concentration of risks in smaller companies operating in an extremely competitive market. Unfortunately, under these circumstances, cost reduction may (although it need not) easily become synonymous with a lack of workplace health protection and prevention. Also, frequently changing working conditions and an often high personnel turnover may render preventive actions and health surveillance very difficult. As a consequence, occupational diseases, while being more likely to occur in this sub-population of workers, are more likely to remain undiscovered.
- The freedom to provide services cross-border in the EU and the almost EU wide mobility of the labour force, resulting both in posted workers and worker migration, requires stronger EU intervention in occupational diseases recognition and identification than is the case in the current Recommendation. Exposures possibly causing an occupational disease may occur in a country other than the home country. Given the latency period in many cases of occupational disease there may be an even more pronounced risk of an occupational disease remaining undiscovered. And even if discovered, there may be an additional problem related to the burden of proof, since the country where the exposure took place and the country where the compensation must be decided may not be one and the same.
- Some industrial activities may require huge investment in prevention in order to avoid occupational diseases, although many activities can be improved at little cost. The lack of enforcement, preventive measures, notification and compensation in some MS and industries may present an attractive playing field for delocalisation. It will be important for the Commission to identify levers for discouraging such opportunistic

practices, through encouraging Member States to do better not only in prevention, but also in the detection and compensation of occupational diseases. Otherwise, such opportunistic strategies may result in increased numbers of (some) occupational diseases in the European Union as a whole.

These developments support the further need to vigilance and monitoring, where the EU may continue to play a major role. It is likely that MS will make more progress in improving their systems with an EU initiative than without. In the light of these broad imperatives, this report identifies a large number of specific suggestions for change in the Recommendation, to make it more relevant and effective. The suggestions appear throughout this report and are gathered together and summarised at the end of this chapter. **The last section 9.3 picks out what the project considers are the "top ten" most important recommendations for change.**

Firstly we will consider five general options related to the future of the current Recommendation.

Options

Option 1: The status quo

The first option is to change nothing in the current Recommendation. This however would be a missed opportunity for promoting prevention as well as identification and compensation of occupational diseases within the EU. From a social perspective, progress in identifying and compensating for occupational diseases all over the EU is the inevitable complement of an open EU labour market, which is a growing reality. Not modifying the current Recommendation would imply that the ambitions do not reach any further than encouraging MS to improve their respective systems, without addressing the need to pick up the challenges constituted by an international labour market. It would also not address the significant specific problems and needs for change identified in the current Recommendation.

Option 2: Stimulate improvements by selected initiatives

The second option would involve progressively improving the recognition and identification of occupational diseases in all MS through a combination of stimulating and innovative recommendations and selective reporting obligations to the European Commission, Eurostat and EU-OSHA. Recognition of an OD is an important area where MS could be encouraged to adopt common criteria: there is no reason why a causal connection between a given exposure factor and a particular occupational disease should be accepted in some MS and not in others. This also may reduce systematic under-reporting of OD in some MS due to the inefficacy of detecting capacity and of reporting procedures. This second option is a compromise between meeting the needs of the protection of victims of occupational diseases in an open labour market and the reluctance of MS to give up sovereignty in social security matters.

Option 3: Strive for harmonisation

The third option is systematically to aim for harmonisation by introducing obligations for Member States to set up occupational disease compensation systems and lists of ODs which would result in a similar approach in all MS. However, social security provisions differ considerably across Member States. Even in cases where the compensation of victims is comparable, the complexity of the whole institutional context directly and indirectly related to occupational disease compensation systems does not allow for harmonisation. Moreover, there seems to be little political support across MS to give up (yet) their historical sovereignty in the field of social regulations.

Option 4: Replace the Recommendation by a stronger legal instrument

This option was also discussed in the project and in the workshop. However the information provided in the national reports and from other sources suggests that currently the political atmosphere and the priorities in several MS would not support a stronger tool (for example, a directive), which also would require implementation support, capacity building etc. Another factor in trying to move to a stronger legal instrument would be the likely necessity to gain unanimous support for directive covering social security issues.

Option 5: Abolish the Recommendation

This option was also considered by the project, and as each MS has its own national approach to the subject matter, it could be done. However, the study revealed that, despite difficulties, drawbacks and cross-national variations, the recommendation as a whole was supported. The newest MS in particular reported that the Recommendation and Annexes had helped in developing their national systems.

The view of the project is that Option 2 is the most realistic and most positive option for the future development of the Recommendation. We believe that the suggestions made in our report could transform the Recommendation into a more dynamic instrument which could build on current successes and relationships; improve coordination and efficiency in the more mature systems which now exist; and in the longer term, lead to a reduction in the rates of occupational disease.

9.2 Specific suggestions for changes to the Recommendation

The suggestions/proposals for recommendations in this chapter do not take away from the sovereignty of Member States as formulated in Article 2: "The Member States shall themselves determine the criteria for the recognition of each occupational disease in accordance with the national laws or practices in force."

A number of the proposals suggest that Member States be requested to give answers to focused questions from the Commission, but in doing so, one should

avoid making a yearly ritual of asking the same questions to Member States, but instead adopt a policy of requesting from each Member State an in-depth analyses of the weaknesses and opportunities of their systems, with the aim of making these much more efficient and effective. It is recognised that these information-gathering proposals have to align with current Commission policy on this matter.

1. Recognition

Member States currently are not required to include all diseases listed in the Annexes to the Recommendation in their national lists. It is suggested that Member States should be obliged to inform the Commission of their reasons for not including certain diseases in their lists for the purposes of notification and compensation. From the point of view of consistency, it seems illogical that for the same exposure to the same substance causing e.g. an occupational cancer, some types of cancers are recognised in one Member State while other types are recognised in another Member State, and while none of these are recognised in still other Member States. In such cases it seems necessary for the Commission to identify the reasons, not necessarily with a view to enforce Member States to adopt the same recognition criteria, but to exchange this documentation for national decision-making processes on the recognition of occupational diseases.

The principal of a two level list as annexes I and II should be maintained. The lists should be regularly updated. Member States should inform the Commission about any new risk factors, working conditions and related diseases that they propose to include in their national list, and explain why they are doing so.

For these and other challenges related to recognition criteria setting, an expert group (perhaps designated as the Scientific Committee on Occupational Diseases (SCOD)) should be created consisting of representatives of Member States based on similar principles to the Scientific Committee on Occupational Exposure Limits (SCOEL). Moreover, the criteria documents collected in this way may constitute a basis for EUROSTAT to develop step by step a reporting system that enables better comparisons to be made between Member States.

2. Compensation

The current Recommendation seems to refer to two problems:

a. Recognition of the occupational origin of diseases which frequently appear also in non-occupationally exposed populations (but still have a higher incidence in occupationally exposed populations), and

b. Conversion from the category of a suspected agent causing occupational disease to that of a fully recognised agent causing disease causing (shift from Annex II to Annex I).

It is recommended that the Commission makes an inventory on how different MS have been coping with both these problems, with the aim of seeking for

innovative solutions. Here again, reporting obligations for Member States may constitute the best possible way forward.

A related challenge with respect to compensation is rehabilitation and reintegration of victims of occupational diseases. Also here, more exchange of experiences and "good practice" could be very useful and the Recommendation should be extended to cover this domain.

3. Prevention

The current Recommendation (only) calls for specific preventive strategies for reducing the risk of occupational diseases listed in Annex I (not even annex II), without making any reference to the "general principles of prevention" and the broad preventive strategies set out in the Framework Directive 89/391/EEC and the related individual Directives on health and safety at work. As a major principle underlying for the future of the Recommendation a plea is made to restrict the Recommendation to the social security or compensation perspective and policies. Prevention of all types of occupational risks and diseases or work-related illnesses should be achieved by strengthening the implementation of the Framework Directive and related directives.

4. Target setting

This domain of the recommendation evokes problems, as the study showed. First of all, the impact of prevention can generally not be measured by the level of recognised occupational diseases. Campaigns for better prevention in some countries lead to increased numbers of occupational diseases that were notified and /or recognised. An increase could easily be considered as a proof of failure of prevention policies in a context in which quantified national objectives were formulated. Instead of setting targets in terms of reduction of occupational diseases, detailed prevention strategies and measures should be formulated for every sector or workplace where the risk of disease is present.

Moreover, setting targets may easily lead to policies to avoid notification and reporting occupational diseases that occurred and thus be counterproductive, rather than increasing their detection and notification.

However, some countries recognise the value of general targets as an aid to encouraging action and are developing targets which relate to "leading" or "precursor" indicators, or "directional targets" as a means of monitoring progress.

Target setting in the context of the Recommendation should rather be related to improving the detection/identification of victims of occupational diseases ('disease first approach'). Developing effective structures of medical surveillance allowing detection of these diseases wherever they are likely to occur is crucial. This is complementary to the general risk assessment principles, so the efficacy of medical surveillance systems allowing timely detection of work related ill-health must be addressed in a new Recommendation.

5. Recording and reporting

There are dramatic differences in the accuracy of reporting between Member States. It is important for every Member State to make a rough assessment of their reporting efficiency, taking into account the type of economic activities. They should be required to do this exercise analysing in detail the weaknesses and strengths of their systems and identify possible solutions for the identified weaknesses, and to report this to the European Commission.

In order for recording and reporting systems to cover as many of the occupational diseases as possible, it is of the utmost importance that pressure not to report, either directly or indirectly, is put neither on the worker nor on the reporter. The evaluation of this possible phenomenon should be part of the assessment as proposed here.

For better recording of occupational diseases, a multi-source approach should be applied. Not only occupational physicians but - for instance - also medical specialists and the worker may be useful additional sources for identification and reporting. Good practices in that respect are available, should further be traced by the Commission and promoted.

A new Recommendation should contain cross-border exchange obligations of any relevant information that may affect the right for compensation of an individual in an as concrete way as reasonably achievable, in order to guarantee the right to compensation. Finally, Eurostat should provide criteria for notification of occupational diseases. This allows Eurostat to develop statistics in which similar diagnostic/exposure criteria are being used.

6. and 7. Epidemiology and Research

In order to improve the overview of research on ODs within and across countries, EU Member States should inform a body at EU level of ongoing and completed epidemiological research. A data base should be created allowing all interested parties to inform themselves about ongoing research.

Research results which are relevant to the diseases listed in Annex I and Annex II should systematically be collected, and analysed for instance by the Expert Group as proposed before.

Finally, at EU level research programmes should take more account of the issues relating to occupational diseases. Emerging challenges like the evaluation of health risks of employees related to nanomaterials and the impact of working time schedules on hormone related cancers are some of the topics that deserve intense research capacity.

8. Diagnosis

The notices used for the diagnosis of occupational diseases should systematically be updated, taking into account the availability of diagnostic tools. The obligation of Member States to notify their criteria documents to the

Commission (see before) may offer very valuable material for updating the notices.

These tools should focus on describing exposure situations and diagnostics, and thus constitute a guide, not only for all medical professionals confronted with diseases possibly of occupational origin, but for others involved in the processes who may be alerted to possibly risky work situations and who may be given an incentive to take preventive measures.

Furthermore, there is a need to document exposure history. This may not only make diagnosis easier after the exposure period, but also constitute a tool for prevention. A general obligation could be considered to keep individual workplace files in individual medical records, at least for exposures with known or suspected risk factors.

Member States should be requested to inform the Commission about their way of identifying exposure histories of employees, allowing the documentation of exposure histories possibly resulting in recognition and compensation of occupational diseases. Furthermore, systematic training to use the "Information Notices on Occupational Diseases, a guide to diagnosis" should be included in the curriculum of occupational physicians.

9. Statistics

EUROSTAT should be included in this domain of the Recommendation,, , as well as the division of tasks between EUROSTAT and EU-OSHA in the OD area.

Member States should be made more aware of how other Member States present their statistics. Here again, the Commission should take an initiative to receive a set of minimal data on occupational diseases from every Member State, as a way of stimulating more relevant statistics on occupational diseases in many more Member States.

10. Awareness raising

Our investigation showed that in a limited number of countries this element of the Recommendation has been applied. Therefore, an active role of general practitioners should be promoted, in order to improve detection of occupational diseases. This is of particular relevance for employees who were never or are not any more under periodic surveillance by a specialised occupational health physician or other surveillance systems. Training should include knowledge of conditions in which occupational diseases may occur, and of their diagnosis.

9.3 The most important suggestions: the "Top ten"

1. The current Recommendation, including the Annexes, should be retained, but adapted to reflect the experience of the last 9 years, and current issues. Since 2003 much experience has been gained and the accessibility of information has greatly improved.

2. The lists in Annexes I and II should be reviewed to ensure that they are still relevant and appropriate in the light of changing technology and working conditions, newly emerging occupational hazards, etc. The Recommendation should be updated regularly. The criteria for including any new disease on the EU list should be published and their implementation in MS should be promoted and encouraged.

3. The Recommendation should focus on compensation and the links between compensation and prevention. It should be made more explicit that the Framework Directive and related directives are the most important instruments for prevention. Any uncertainty about recognition for compensation should not inhibit effective prevention efforts.

4. The differences between the compensation systems of MS are such that harmonisation of compensation issues is unlikely to be realistic, but exchanging information about diagnosis, compensation rules and systems will have value. MS should provide the Commission with a range of information on their approach to ODs, in particular on their policies and practice on recognition, so that greater understanding is gained of the similarities and differences. MS should provide the Commission with their reasons for not adopting into their national list, an OD on the EU list, and provide evidence for their decisions to add new diseases to their own lists. Information gathering should be structured by the Commission and EU-OSHA in the context of their normal approach to reporting.

5. Greater consistency of decision-making across MS would be aided by the creation of a Scientific Committee on Occupational Diseases (SCOD), which could also give a lead and bring greater coordination to most other aspects of the Recommendation, such as research and epidemiology. It is important from an efficiency point of view that such a group works closely with related ILO and WHO groups. It would be better to test the diagnostic approach on a small range of priority issues spanning the spectrum of causal certainty, such as mesothelioma; shift work and breast cancer; and PTSD.

6. There should be closer cooperation between the EC, EU-OSHA, Eurofound, Eurostat, the ACSH, SLIC and other players on OD priorities and policies. Cooperation should extend to other organisations such as the ILO and WHO; to agencies or groups such as MODERNET; and to the insurance associations in MS. All these groups can contribute to the exchange of information and raising awareness. Better cooperation could be driven by SCOD.

7. The ability to evaluate the effects of prevention initiatives and actions depends on improving OD statistics; while obtaining fully comparable statistics is unlikely to be achievable, the Recommendation should explicitly endorse the EU Regulation on statistics for public health and OSH. Eurostat should be encouraged to continue its efforts in this area, and MS to continue to support Eurostat.

8. The Recommendation should be reworded to give more emphasis to good practice. Good practices show to be documented in MS and collected into databases at EU OSHA. Communication of good practice in relation to ODs is important and all stakeholders should support EU-OSHA in this role. EU-OSHA should look at the full range of good practice from national policy to workplace improvements.

9. The Commission or SCOD should consider how the definitions of OD are structured, and move to a position where definitions include the relationship between the harmful agent and the levels of exposure. Particular attention should be paid to the exchange of information between MS to help in clarifying how multiple cause illnesses or diseases can best be described and how, conceptually, they can be included in compensation systems.

10. The Commission or SCOD should consider the action necessary across the EU to improve a range of broad issues including, for example, the approach to new risks; to promote a more active and informed role for health professionals; and how to deal with the issue of cross-border compensation.

10 List of Tables

11 List of Abbreviations

AF	Attributable Fraction
AUVA	Allgemeine Unfallversicherungsanstalt
COM	Commission of the European Communities
COST	Cooperation in Science and Technology
CSE	Control of chronic solvent-induced Encephalopathy
CVD	Cardiovascular Diseases
DES	Diethylstilbestrol
DGUV	Deutsche Gesetzliche Unfallversicherung
EC	European Commission
EEA	European Economic Area
EEC	European Economic Community
EFFAT	European Federation of Trade Unions in the Food, Agriculture and Tourism Sectors
EODS	European Occupational Diseases Statistics
ESENER	European Survey of Enterprises on New and Emerging Risks
ETUI	European Trade Union Institute
EU	European Union
EU-OSHA	European Union-Occupational Safety and Health Administration
EUROSTAT	Statistical Office of the European Union
FIOH	Finnish Institute of Occupational Health
FP6	The Sixth Framework Programme
FP7	The Seventh Framework Programme
GDA	Common German Policy on Health and Safety at Work

GEOPA-COPA	Employers' Group of Professional Agricultural Organisations in the European
GNP	Union Gross National Product
GPs	General Practitioners
GVG	Gesellschaft für Versicherungswissenschaft und -gestaltung
HR	Human Resources
HAS	Health and Safety Agency
HSE	The Health and Safety Executive
IARC	International Agency for Research on Cancer
IC	Canary Islands
ICD-10	International Statistical Classification of Diseases and Related Health Problems, 10th Revision
ILO	International Labour Organization
INI	Own-Initiative Procedure
IOELV	Indicative Occupational Exposure Limit Values
ISSA	International Social Security Association
MPs	Members of Parliament
MS	Memeber State
MSD	Musculoskeletal Disorder
MUSKA	MSDs Risk Assessment and Simulation of technical and organisational Solutions
NMP	Nanosciences, Nanotechnologies, Materials and new Production Technologies
OD	Occupational Diseases
OM	Occupational Medicine
ORs	Odds-Ratios
OSH	Occupational Safety and Health

OSHA	Occupational Safety and Health Administration
PAH	Polycyclic Aromatic Hydrocarbon
PIN	Progressive Inflammatory Neuropathy
PPR	Proportional Reporting Ratios
PTSD	Post Traumatic Stress Disorder
RNV3P	The French National Occupational Disease Surveillance and Prevention Network
RSI	Repetitive Strain Injury
RTD	Research and Technology Development
SCOEL	Scientific Committee on Occupational Exposure Limits
SME	Small and Medium Enterprise
SoSe	Social Security
WAOD	Accidents at Work and Occupational Diseases
WHO	World Health Organisation

12 List of Country Abbreviations

AT	Austria
BE	Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finnland
FR	France
GR	Greece
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LT	Lithuania
LV	Latvia
MT	Malta
NL	The Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden

SI	Slovenia
SK	Slovakia
UK	The United Kingdom

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