National OSH programme – the Polish experience

PANEL 2: Delivering national strategies, experiences with concrete action programmes

2nd ACSH WORKSHOP ON NATIONAL OSH STRATEGIES
Luxembourg, 7-8 October 2009
Assessment of working conditions in EU-15 and EU-27 countries

Source:
European Foundation for the Improvement of Living and Working Conditions, Dublin
Working conditions in Poland in 2008

- 104 402 accidents at work
- 523 fatal accidents
- 902 serious accidents
- 3 546 occupational diseases
  (new cases)
Employment in hazardous conditions in 2008 according to the Central Statistical Office (GUS)

- Chemical substances: 25 thousand
- Fibrogenic industrial dusts: 52 thousand
- Other industrial dusts: 33 thousand
- Noise: 241 thousand
- Vibration: 19 thousand
- Hot microclimate: 19 thousand
- Cold microclimate: 20 thousand
- Hazards related to strenuousness of work: 211 thousand
- Insufficient lighting of work stations: 37 thousand
- Factors related to particularly dangerous machines: 85 thousand
Subjective assessment of particular hazardous factors does not overlap with their objective assessment and with GUS data.

Proportion of workers in hazardous environmental conditions
Comparison of questionnaire data ■ and environmental data ■ (acc. to CIOP-PIB)
and statistical data ■ (Z-10)  

(D. Koradecka et al.)
Costs of occupational safety and health

In **2008**, the total cost of disability and family pensions as well as single benefits, paid out by The Social Insurance Institution for occupational diseases, accidents at work and accidents on the way to and from work amounted to about **1.1 billion €**, which constituted **3.6 %** of the total cost of compensations paid from the Social Insurance Fund of the Social Insurance Institution.
As analyses conducted in EU countries show, indirect costs are 3 – 4 times higher than the costs of pensions and compensations. This would result annually in the costs due to improper working conditions amounting to 3.3 – 4.5 billion €, which in 2008 constituted ca. 1.1 – 1.5% of the total GDP.
NATIONAL OSH PROGRAMMES in Poland

1. ADAPTATION OF WORKING CONDITIONS IN POLAND TO EUROPEAN UNION STANDARDS
   - Phase I: 2002-2004
   - Phase II: 2005-2007

2. IMPROVEMENT OF SAFETY AND WORKING CONDITIONS (2008-2010)
   - Phase I: 2008-2010
National Programme
”Improvement of Safety and Working Conditions” (1)

Requested by:
Ministry of Labour and Social Policy

Cooperation in research and development activities:
Ministry of Science and Higher Education

APPROVED by COUNCIL of MINISTRES

Main performer and coordinator: CIOP-PIB
The Programme is realized with the participation of:

1. State administration
2. Supervision and control bodies
3. Social partners
4. Scientific and research resources
The Programme was developed on the basis of proposals submitted by:

- social partners (above all, trade unions)
- supervision and control bodies (above all National Labour Inspectorate)
Main objective:

to reduce the number of work-related accidents and occupational diseases as well as relevant economic and social losses by developing and implementing innovative organisational and technical solutions aimed at the development of human resources, new products, technologies, methods and management systems.
Specific objectives
1) fulfillment of basic requirements included in legal regulations on occupational safety and health adapted to the European Union provisions,
APPOINTMENT OF THE COMMISSION

(REGULATION OF THE PRIME MINISTER OF 15 DECEMBER 2008)

INTERDEPARTMENTAL COMMISSION FOR MAXIMUM ADMISSIBLE CONCENTRATIONS AND INTENSITIES FOR AGENTS HARMFUL TO HEALTH IN THE WORKING ENVIRONMENT

(CIOP-PIB)

DOCUMENTATION OF ADMISSIBLE VALUES

REGULATION

OF THE MINISTER OF LABOUR AND SOCIAL POLICY

STATE SANITARY INSPECTION

NATIONAL LABOUR INSPECTION

OSH SERVICES

TECHNICAL SERVICES

OCCUPATIONAL MEDICINE SERVICES
Determination of maximum admissible concentration (MACs) of noxious chemical agents in the working environment in Poland

The number of chemical substances harmful to health

Medium number of a number of chemical substances, for which threshold limit values are established in several UE countries (Sweden, Denmark, Great Britain, France, Germany)

The number of chemical substances, for which Occupational Exposure Levels (OEL) are established in the EU (2000/39/UE)
OSH Standards developed

The methods for testing chemical and physical factors in working environment, and technical solution for prevention

• Till the end of 2007 - 938

• Total till the end of 2012 - 1323
Within the Institute’s accreditation, 2008 accomplishments included:

- CE type certificates for personal protective equipment
- Calibrations of working environment measuring devices
- Measurements of working environment parameters
- Certificates of personnel’s competence in the field of OSH

**TOTAL NUMBER** 1302
2) provision of **special protection for persons working in high-risk economy sectors**
Examples of technical solutions

- Environmentally friendly fire-safe polyurethane foams
- Active hearing protector
- Energy expenditure meter
- Immersion suit
- Halfmask protecting against biological hazards
Attenuation of high-level acoustic impulses by hearing protectors

Impulse noise source before and after an explosion

Projects carried out within the National Programme “Adaptation of Working Conditions in Poland to European Union Standards” (2002-2007) and the National Programme “Improvement of Safety and Working Conditions” (2008-2010)
Noise exposure of musicians

Testing earplugs for musicians

Earplugs for musicians and its attenuation

Projects carried out within the National Programme “Improvement of Safety and Working Conditions” (2008-2010)
Assessment model of combined influence of whole-body and hand-arm vibration in the working environment

\[ E_{\text{total}} = \sum E_i \]

KD: index for the total assessment of combined vibroacoustic hazards

Certain part of vibroacoustic energy (E) influencing the driver is not taken into account when individual factors are estimated separately.
Awards and distinctions in 2008

New generation firefighter clothing with textronic system with physiological parameters monitoring

Gold medal
57th International Invention Exhibition
BRUSSELS INNOVA
2008

Silver medal
International Warsaw Invention Show
IWIS 2008
### Number of awards and patents (2005-2008)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
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<tbody>
<tr>
<td>International awards</td>
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<tr>
<td>Domestic awards</td>
<td>25</td>
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<tr>
<td>Patents and utility model protection rights</td>
<td>17</td>
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Safety of nanotechnology

I. **Project NANOSH implemented under the EU's Sixth Framework Programme (FP6)**

Inflammatory and genotoxic effects of engineered nanomaterials
(2006-2009)

Partners: FIOH (Finland), HSL and ULEIC (UK), LMU and BGIA (Germany),
TNO (Netherlands), CIOP-PIB (Poland)

II. **Project NANODEVICE implemented under the EU's Seventh Framework Programme (FP7)**

Novel Concepts, Methods, and Technologies for the Production of
Portable, Easy-to-Use Devices for the Measurement and
Analysis of Airborne Engineered Nanoparticles in Workplace Air
(2009-2013)

Partners: FIOH (Finland), TNO (Netherlands), HSE (UK), INRS (France), BAuA (Germany),
CIOP-PIB (Poland), etc.

III. **Project carried out by Topic Centre Risk Observatory for the European Agency for Safety and Health at Work**

Project 2008-02:
Workplace exposure to nanoparticles and ultra-fine particles (2008)

Partners: BauA (Germany), INRS (France), INSHT (Spain) CIOP-PIB (Poland)
3) development and implementation (i.a. in SMEs) of OSH management system methods with special focus on occupational risk assessment and reduction,
STER 7.1

Advanced software tool supporting enterprises in risk assessment and OSH management

- Used by more than 500 companies
- Enables analysis of risk for hundreds of hazardous factors
4) increasing the employee and society awareness about the dimension and consequences of accidents at work and occupational diseases and cost-effectiveness of preventive measures at the national and enterprise level
Implementation of OSH MS contributes significantly to the development of direct participation.

- Solving OSH-related issues by groups of employees: 91% (with OSH MS), 29% (without OSH MS)
- Reporting OSH-related issues through representatives: 91% (with OSH MS), 52% (without OSH MS)
- Reporting OSH-related issues in writing: 76% (with OSH MS), 38% (without OSH MS)
- Discussing OSH-related issues with management at regular meetings: 79% (with OSH MS), 38% (without OSH MS)
- Discussing OSH-related issues with immediate manager: 79% (with OSH MS), 57% (without OSH MS)
Bases for differentiating insurance premium rate in relation to accidents at work and occupational diseases

Risk category for a company is at the same level as settled for the branch or lower / higher by 1 category

Risk category for a company is higher than for the branch by at least 3 categories

Risk category for a company is lower than for the branch by at least 3 categories

Years of implementation of accident insurance system
5) **shaping the high level of safety culture among the employers and employees by developing the system of education and information on OSH requirements.**
Multimedia educational materials for universities, secondary schools and preschools
Centre for Personnel’s Competence Certification
Certification of competence:

- OSH lecturers
- OSH specialists in the measurement of working conditions parameters
- OSH MS auditors
- OSH consultants SMEs
Offices of the Members of OSH network of experts and Regional OSH centres
Dissemination of the Programme outcomes in 2008

Over 5,600,000 information users

Employers, employees, young people:
• Participants of dissemination activities
• Recipients of information materials
• Library users
• Internet service users
• Children, schoolchildren
Portal www.ciop.pl ranked 3rd most popular in Europe in the field of OSH
IMPORTANT RESULT

Substantive support for the Ministry of Labour and Social Policy in amending legal regulations on reducing early retirement
Previous legal regulations affording the grounds for early retirement:

- ca. 1,000 work types and posts

As a result of this program, only

- 64 types of work performed in special conditions and of special character have been retained
A new act on "bridging" pensions was adopted on 19 December 2008

Savings for the state budget – ca. 5 billion €
SWOT analysis concerning the present state and perspectives in shaping proper working conditions and the quality of life of the workforce in Poland
SWOT analysis in OSH

STRENGTHS:

1. High quality of scientific and specialist staff

2. National standards and regulations on OSH adapted to EU requirements

3. An increasing level of social awareness about the importance of the quality of life
OPPORTUNITIES:

1. Use of EU funds to achieve:
   - Increase of the competitiveness of Polish economy (quality of products and jobs)
   - Advancement of human resources (retraining, broadening of competence)
2. Prolongation of occupational activity
3. Fulfillment of the objectives of EU strategy on OSH
WEAKNESSES

1. System organizational deficiencies
2. System financial shortfalls
3. Poor financial condition of SMEs
4. Low status of OSH issues as an element of the quality of life
THREATS

1. Adverse demographic changes (aging society, emigration of young, highly-qualified people)
2. Improper distribution of public resources focused on effects (accidents at work, occupational diseases), not on causes (reduction in the number of people exposed)
3. Limited expenditures for research and implementation of innovative OSH solutions
Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

Definition of health acc. to WHO constitution

Zdrowie jest stanem dobrego samopoczucia fizycznego, psychicznego oraz socjalnego, a nie tylko brakiem choroby
Polish OSH strategy

Aim

Shaping safety culture
The Strategy:

- targets the entire society and goes beyond the workplace and population of employees
- considers the necessity to prevent diseases to prolong occupational activity in good health
POSTERS: Stress at work

Author: Mariusz Napierała

Author: Kuba Sowiński
POSTERS: Work with computer

Author: Rafał Pankowski

Authors: Mariusz Napierała, Robert Listwan

Author: Jerzy Ch. Skakun
POSTERS:

Occupational risk

Author: Svein Erik Okstad

Author: Aleksandra Łowicka-Cuper
Indicators of achievement of the National OSH Programme “Improving of safety and working conditions”
Phase I (2008 – 2010)
1. Development of bases for implementing new directives and monitoring implementation of OSH directives already implemented, including 5 basic directives 89/391/EEC; 89/654/EEC; 89/655/EEC; 89/656/EEC; 98/24/EC).
2. Development of a national system of monitoring OSH by working out:

- Drafts of occupational exposure limits (MAC, MAI, MPE) /44/
- Methods for measuring working environment, analytical procedures /41/
- Draft standards /201/
- Proposals of amendments in legal regulations /6/
3. Advancement of the system of conformity assessment with OSH and ergonomics requirements for products, management and personnel’s competence systems by:

- Building research stands and equipment /37/
- Development of conformity assessment procedures /47/
4. Supporting risk assessment and OSH management by developing:

- Test methods /25/
- Computer tools and programmes /25/
- Data bases /11/
- Other tools (e.g. checklists, risk assessment methods) /45/
Thank you for your attention