WORK CONDITIONS AND RISKS IN LATVIA 2012-2013

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WORK CONDITIONS AND RISKS IN LATVIA, 2012–2013

The Study "Work conditions and risks in Latvia 2012-2013" was carried out within the project "Practical application of the legislation regarding labour relations and occupational safety in sectors and companies" (No. 1DP/1.3.1.3.2./08/IPIA/NVA/002) with financial support of the European Social Fund of the European Union and the state of Latvia. Responsibility for the content of the research shall be borne by the Employers' Confederation of Latvia, "TNS Latvia Ltd." and Institute for Occupational Safety and Environmental Health of Rīga Stradiņš University (RSU DDVVI).

Riga, 2013

RESEARCH GROUP

The Study "Work conditions and risks in Latvia" within the project "Practical application of the legislation regarding labour relations and Occupational safety in sectors and companies" (No. 1DP/1.3.1.3.2./08/IPIA/NVA/002) with financial support of the European Social Fund of the European Union and the state of Latvia was carried out by a research group composed of the experts from "TNS Latvia Ltd." and Institute for Occupational Safety and Environmental Health of Rīga Stradiņš University.

Following specialists contributed to the Study: Ivars Vanadziņš, Žanna Martinsone, Svetlana Lakiša, Jeļena Reste, Mairita Grāvele, Mārīte Ārija Baķe, Dagmāra Sprūdža, Inese Mārtiņsone and Maija Eglīte.

Quantitative surveys of employers, employees and general public, as well as analysis of focus groups were carried out by "TNS Latvia Ltd." under the leadership of project director Signe Kaņējeva. Study was carried out by: Signe Kaņējeva, Revita Logina, Ingrīda Libora, Nataļja Kovaļova, Māra Mileiko, Jānis Reinsons, Aleksandra Galahina.

SUMMARY

Objective of the Study "Work conditions and risks in Latvia, 2012-2013" was to carry out analysis of the development of labour safety system in dynamics by evaluation implementation of the proposals provided in similar studies both in 2005–2007 and in 2009–2010. This Study shall provide additional analytic data in the fields of occupational health, occupational safety and legal labour relations to be potentially serving as a background for adoption of rational and effective decisions for the creation of employment and social policy programs and provision of sustainable development, as well as improvement of the situation of occupational health and safety in different target groups (for example, youth, micro-enterprises etc.).

Study included surveys of employers, employees, and permanent residents of Latvia, as well as discussions of focus-groups of the occupational health and safety specialists, and the activities of the Study included also analysis of the available occupational health and safety data bases, as well as analysis of objective situation (performed laboratory measurements) providing opportunity to ground development of occupational health and safety policy programs on the results of the Study. Results of the Study revealed improvement of the situation in separate fields, however, insufficient compliance with the legislation requirements regarding occupational health and safety and legal labour relations in workplaces, as well as insufficient awareness and understanding of general public regarding such requirements is still topical. Further on special attention should be paid to the development of alternative methods for informing and educating people, as well as regular and periodic acquirement of national indicators to assess efficacy of implemented measures related to aspects of occupational health and safety, as well as legal labour relations.

Keywords: occupational health and safety, legal labour relations, work environment

Client: Employers' Confederation of Latvia
Edited by: Aija Lapsa
Cover page designed by: Inese Siliniece
Composition by: Inese Siliniece
Printed by: EIRO PRINT

ISBN 978-9984-793-41-2

Honourable entrepreneurs!

This has been our third study „Work conditions and risks in Latvia" created within the project "Practical application of the legislation regarding labour relations and labour protection in sectors and companies" co-financed by the European Social Fund. *Employers' Confederation of Latvia (LDDK) would like to express our gratitude to everybody who participated in the creation of the study, because this is a valuable material of knowledge allowing to understand the development of labour relationship in Latvia and change of the expectations, job satisfaction and understanding regarding significant matters of the work process of employers and employees right during the post-crisis period.*

Previous study of similar nature was carried out in the most acute period of crisis – in 2009 and 2010, and back then insufficient understanding of young employees, specialists and managers regarding labour protection and labour law was singled out as one of the most significant problems. This year, looking back to the three recent years, we may conclude that situation is slightly improving in this field, and I am sure that the purposeful work of LDDK aimed at inurement and education of youth in these matters has played certain role in this process.

We are pleased to conclude that satisfaction of the employees with current job, work conditions and occupational environment has grown in recent years, and this directly correlates with the growing compliance of the companies with legal requirements of labour protection. Employers pay higher attention to the information of employees regarding occupational risk factors, show higher activity in attraction of external specialists for carrying out of labour protection measures in companies, as well as more frequently take interest on how to make the working environment and conditions more suitable for efficient execution of job.

Besides, in the field of legal labour relations employers have become more responsible towards their employees, as improvements in the answers regarding written employment contracts reveal.

Undoubtedly, it is impossible to assert that situation in the field of labour protection and legal labour relations is currently ideal in Latvia – there is still a lot of work to do in order to reduce the share of illegal economy still comprising rather high proportion of "envelope wages". Also, despite the decrease of the number of workplace accidents with fatal outcome, number of workplace accidents as such has increased. This can be partly explained by gradual improvement of economic situation and growing activity in fields traditionally related to more dangerous occupational risks, however, such a tendency leads to more active focusing to further preventive action by duly educating and provision of all the necessary support and consultations to the employers.

Project "Practical application of the legislation regarding labour relations and labour protection in sectors and companies" implemented by the LDDK in the duration of five years comes to an end at the end of this year, however, we will continue working in order to provide this support so necessary to the companies with new energy and new resources. I would like to especially emphasize that during the coming years it will be important to concentrate on cooperation with the small companies and even micro-enterprises, number of which has significantly grown especially during the recent years, after the economic crisis.

I hereby invite the entrepreneurs to keep taking care of and allocate financial resources for putting in order the working conditions in companies, because this directly affects reputation of the company and employees' motivation to work at good quality and with efficiency.

Good luck!

LĪGA MENĢELSONE

Director General of the *Employers' Confederation of Latvia*

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List of abbreviations

LBAS	Free Trade Union Confederation of Latvia
LDDK	Employers' Confederation of Latvia
LR	Republic of Latvia
MK	Cabinet of Ministers
***NACE* classification**	Classification of Economic Activities in the European Community
P. Stradiņa KUS	Pauls Stradins Clinical University Hospital
SDO	International labour organization
SSK	International Classification of Diseases
VDI	State Labour Inspectorate
VSAA	State Social Insurance Agency

Definitions and interpretations of used terms

Occupational disease
Disease characteristic to certain categories of employees caused by physical, chemical, hygienic, biological and psychological factors in the working environment. Source: Law On Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases.

Labour protection
Safety and health of employees at work. Source: Labour Protection Law.

Labour protection measures
Legal, economic, social, technical and organizational preventive measures the objective of which is to establish a safe and harmless work environment, as well as prevent accidents at work and occupational diseases. Source: Labour Protection Law.

Labour protection specialist
An employee who has the duty to organise and control labour protection measures and to perform internal supervision of the work environment, and who has been trained in accordance with the procedures specified by the Cabinet. Source: Labour Protection Law.

Work equipment
Any device (machine, mechanism), apparatus, tool or installation that is used at work. Source: Labour Protection Law.

Employer
A natural person, a legal person or a partnership with legal capacity, which employs at least one employee. Source: Labour Protection Law.
A person, who manages its entrepreneurship, professional practice or farmstead to gain income or benefit and employs one or more persons for remuneration. Source: Central Statistical Bureau.

Work environment
The workplace with its physical, chemical, psychological, biological, physiological and other factors to which an employee is subject by carrying out his or her work. Source: Labour Protection Law.

Internal supervision of the work environment
Planning, organisation, implementation and management of the activities of an undertaking in such a way as to guarantee a safe and harmless work environment. Source: Labour Protection Law.

Work environment risk
The likelihood that harm to the safety or health of an employee is caused in a work environment, and probable severity level of such harm. Source: Labour Protection Law.

Workplace
A place, where an employee performs his or her work, as well as any other place within the scope of the undertaking, which is accessible to the employee in the course of his or her work or where the employee works in accordance with the permission or an order of the employer. Source: Labour Protection Law.

Competent authority

An authority, which is authorised to perform internal supervision of the work environment and whose competence on labour protection issues has been evaluated in accordance with procedures specified by the Cabinet. Source: Labour Protection Law.

Competent specialist
A specialist, who is competent to perform internal supervision of the work environment in an undertaking and whose competence has been evaluated in accordance with procedures specified by the Cabinet. Source: Labour Protection Law.

Consultations
An exchange of views and the establishment of a dialogue between representatives of employees and the employer in order to reach agreement. Source: Labour Protection Law.

Micro-enterprise

An individual merchant, an individual undertaking, a farm or fishing enterprise, as well as natural persons registered as performers of economic activity at the State Revenue Service, or a limited liability company, which conform to the specific criteria (the participants are natural persons, the turnover does not exceed 70 000 lats in a calendar year etc.) Source: Micro-enterprise tax Law.

Micro-enterprise tax payer

Enterprises (including micro-enterprises) having opted paying of micro-enterprise tax. Source: Micro-enterprise tax Law.

Accident at work
Harm caused to the health of the insured person or death of the insured person, if the cause of such is an extraordinary incident, which has occurred within one working day (shift) during the performance of work duties, as well as while acting to save any person or property and to prevent a threat of danger to such. Source: Law On Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases.

Part-time employees
Persons, who are employed (employees) for reduced working hours or usually work less than 40 hours a week, excluding persons, who consider themselves as being employed for full time working hours regardless of actual worked hours. Source: Central Statistical Bureau.

Employee
Any natural person, who is employed by an employer, also State civil servants and persons, who are employed during training or traineeships. Source: Labour Protection Law.
The Study "Work conditions and risks in Latvia" uses this definition in spite that for the statistical purposes the Central Statistical Bureau has another definition (see below).
According to SDO definitions employees are all the persons having performed any work during the reference week either for remuneration in cash or goods or services. Self-employed in entrepreneurship, farmstead or professional practice are also considered as being employed. Persons in temporary absence due to prenatal or maternity leave, as well as on child-care leave shall be considered as employees, if the person has been guaranteed return to previous job after the leave. Scope or employees shall also include the persons working in their farmstead (farm or household farm) to produce goods for their own consumption or selling. Source: Central Statistical Bureau.

Representatives of employees
An employee trade union, in whose name acts a trade union authority or official authorised by the articles of association of the trade union, and authorised representatives of employees, the authority of which does not include those rights belonging only to employee trade unions. Source: Labour Protection Law.

Serious and direct danger
Threats to the life and health of an employee, which may occur unexpectedly, in a short period of time and which irrevocably impact upon the health of the employee. Source: Labour Protection Law.

Principal work
Work, where a person usually works most hours within a week. Source: Central Statistical Bureau.

Self-employed
A person, who manages his/her entrepreneurship, professional practice or farmstead to gain income or benefit and does not employ other persons. Source: Central Statistical Bureau.

Full time employees
Persons employed (employees) for full-time working hours or usually work (employers, self-employed) at least 40 hours a week, as well as employees of work categories which are subject to reduced working hours (teachers, physicians etc.), but who consider themselves employed full-time. Source: Central Statistical Bureau.

Preventative measures
Actions or measures that are carried out or planned in an enterprise for all stages of work in order to prevent or reduce work environment risk. Source: Labour Protection Law.

Occupation or position
Occupations of national economy listed in the Classification of Occupations of the Republic of Latvia. Source: Central Statistical Bureau.

Enterprise
An organisational unit in which an employer employs employees. Source: Labour Protection Law.

Trusted representative
A person elected by employees and who is trained in accordance with procedures specified by the Cabinet, and who represents the interests of employees regarding labour protection.
Source: Labour Protection Law.

Type of economic activity
Type of enterprise or individual activity, which is defined by produced output or provided services. Types of economic activity are specified in the Classification of Economic Activities in the European Community (*Nomenclature des activités économiques des communautés européennes*, *Classification of Economic Activities in the European Community – NACE*) (http://www.csb.gov.lv/node/29900/list).

Regional division of Latvia
Researchers of the Study faced the following problem – occupational indicators are compiled according to two different regional divisions:

- territorial units of the State Labour Inspectorate (data from the annual reports of VDI);
- Regions of Latvia – Riga, Greater Riga, Vidzeme, Latgale, Kurzeme, Zemgale (data from the annual reports of CDP).

In the frames of the Study researchers applied regions related to territorial units of the State Labour Inspectorate as the most part of annual information regarding occupational health and safety and legal labour relations is summarised and analysed using this division. Besides, it should be noted that previous studies of occupational health and safety issues at deeper and wider scale than national, have used this regional division only. Besides, this approach would allow assessment of activity of the State Labour Inspectorate and facilitate easy use of the results of the Study "Work conditions and risks in Latvia" in the territorial units of the State Labour Inspectorate. At the same time it must be noted that majority of the official data on employment are available in regional dimension used by the CSP (Riga, Riga suburbs region, Latgale, Vidzeme, Kurzeme and Zemgale regions). The State Labour Inspectorate has also repeatedly performed reforms of the regional structure (both in 2008, and 2012), therefore precise comparison of data across the regions of the State Labour Inspectorate is impossible.

Currently there are 5 Regional Labour Inspectorates:

- Riga Regional Labour Inspectorate supervises Riga un Jurmala Cities and Riga District (with a centre located in Riga), and following municipalities are under its supervision: Adazi municipality, Babite municipality, Carnikava municipality, Garkalne municipality, Marupe municipality, Saulkrasti municipality and Stopinu municipality;

- Vidzeme Regional Labour Inspectorate supervises Valmiera, Cesis, Gulbene and Aluksne Districts (with a centre located in Valmiera), and following municipalities are under its supervision: Aloja municipality, Aluksne municipality, Amata municipality, Ape municipality, Balvi municipality, Beverina municipality, Burtnieki municipality, Cesvaine municipality, Cesis municipality, Ergli municipality, Gulbene municipality, Incukalns municipality, Jaunpiebalga municipality, Koceni municipality, Krimulda municipality, Limbazi municipality, Ligatne municipality, Lubana municipality, Madona municipality, Mazsalaca municipality, Malpils municipality, Naukseni municipality, Pargauja municipality, Priekuli municipality, Rauna municipality, Rugaji municipality, Rujiena municipality, Salacgriva municipality, Seja municipality, Sigulda municipality, Smiltene municipality, Strenci municipality, Valka municipality, Vecpiebalga municipality, Vilaka municipality;

- Latgale Regional Labour Inspectorate supervises Daugavpils, Rezekne, Jekabpils, Preili, Kraslava and Balvi Districts (with a centre located in Daugavpils), and following municipalities are under its supervision: Aglona municipality, Akniste municipality, Baltinava municipality, Cibla municipality, Dagda municipality, Daugavpils municipality, Ilukste municipality, Jekabpils municipality, Karsava municipality, Kraslava municipality, Krustpils municipality, Livani municipality, Ludza municipality, Nereta municipality, Plavinas municipality, Preili municipality, Rezekne municipality, Riebini municipality, Sala municipality, Varaklani municipality, Varkava municipality, Viesite municipality, Vilani municipality, Zilupe municipality;

- Zemgale Regional Labour Inspectorate supervises Bauska, Jelgava, Ogre, Dobele, Aizkraukle and Tukums Districts (with a centre located in Jelgava), and following municipalities are under its supervision: Aizkraukle municipality, Auce municipality, Baldone municipality, Bauska municipality, Dobele municipality, Engure municipality, Iecava municipality, Ikskile

municipality, Jaunjelgava municipality, Jaunpils municipality, Jelgava municipality, Kandava municipality, Koknese municipality, Kegums municipality, Kekava municipality, Lielvarde municipality, Ogre municipality, Olaine municipality, Ozolnieki municipality, Rundale municipality, Salaspils municipality, Skriveri municipality, Tervete municipality, Tukums municipality, Vecumnieki municipality and Ropazi municipality;

- Kurzeme Regional Labour Inspectorate supervises Saldus, Kuldiga, Talsi, Ventspils and Liepaja Districts (with a centre located in Liepaja) , and following municipalities are under its supervision: Aizpute municipality, Alsunga municipality, Broceni municipality, Dundaga municipality, Durbe municipality, Grobina municipality, Kuldiga municipality, Liepaja municipality, Mersrags municipality, Nica municipality, Pavilosta municipality, Priekule municipality, Roja municipality, Rucava municipality, Saldus municipality, Skrunda municipality, Talsi municipality, Vainode municipality and Ventspils municipality.

International Classification of Diseases

For the comparison of morbidity and mortality data, development of the International List of Causes of Death started in the 19th century (for the first time adopted in 1893). Since 1948 this classification is known as the International Classification of Diseases and Causes of Death (ICD) and is revised once in ten years. Each revision has its own serial number. For example, ICD-10 means that causes of death and diseases are codified according to the 10th revision of the classification. Currently 43rd International Statistical Classification of Diseases and Related Health Problems (ICD-10) approved by the Order No. 20 of 17 January 1996 of the Ministry of Welfare of the Republic of Latvia is valid in Latvia. This classification is adopted in Latvia without any changes, therefore, comparison of data with other states is possible. The Classification is developed by the World Health Organisation, but the Centre of Health Economics is the institution of Latvia responsible for adaptation and introduction (translation and modification) of the international classification.

In Latvia occupational diseases are diagnosed, registered and analysed according to this Classification as well, therefore researchers of the Study used it for the purposes of the Study.

Classification of enterprises due to size

In the frames of the Study Latvian enterprises were divided into several groups according to their size:

- micro-enterprises with 1 to 10 employees;
- small companies with 11 to 49 employees;
- medium companies with 50 to 249;
- large companies with 250 and more employees.

Introduction

The Study "Work conditions and risks in Latvia, 2012-2013" was carried out within the sub-activity 3.2 "Study on the work conditions and risks in Latvia 2012-2013 and publishing of material" of the project "Practical application of the legislation regarding labour relations and occupational safety in sectors and companies" (project No. 1DP/1.3.1.3.2./08/IPIA/NVA/002) ordered by the Employers' Confederation of Latvia and with financial support of the European Social Fund of the European Union and the state of Latvia. Objective of the Study is establishment of the situation in the field of occupational health and safety in Latvia and development of recommendations for the improvement of legal basis regulating this field in order to promote fulfilment of the requirements regarding occupational health and safety specified in legislation, as well as recommendations for other measures to be implemented in order to improve work conditions and working environment in the Latvian enterprises.

Tasks or the Study are:

- Identification of the existing problems and deficiencies in the field of organization of working environment in the in the Latvian enterprises in dimension by sectors, in regional dimension and other:
    - by conducting employers survey and their representatives (at least 1000 respondents);
    - by conducting employees survey (at least 2500 respondents);
    - by conducting survey of permanent residents of Latvia (at least 1000 respondents);
    - by organizing four discussions of the focus groups (40 participants in total, including experts of the sector, specialists of occupational health and safety having higher vocational education);
- Conducting of the analysis in dynamics of all nationwide available data on occupational diseases, accidents at work and costs caused for the social insurance budget for the period from 1999 to 2012:
    - VSAA – compulsory social insurance in respect of accidents at work and occupational diseases;
    - data of the VDI – accidents at work;
    - data of P.Stradins Clinical University Hospital, Occupational Disease and Radiology Medicine Centre – occupational diseases;
    - data of the "Institute for Occupational Safety and Environmental Health" of Rīga Stradiņš University – performed laboratory measurements of the working environment.
- Assessment of all obtained results:
    - performance of the analysis of all surveys paying special attention to the characterization of situation in dynamics (in comparison with the ESF Studies "Work conditions and risks in Latvia" conducted in 2005-2007 and in 2009-2010);
    - performance of the analysis of all available data in dynamics for the period from 1999 to 2012;
    - to evaluate implementation of the recommendations provided within the ESF Studies "Work conditions and risks in Latvia" conducted in 2005-2006 and 2009-2010;

- to determine the necessary changes and improvements for legislation in the field of occupational health and safety in order to reduce the administrative burden to the employers, to prepare recommendations for the policy makers and enforcers;

- Preparation of the Study publications:
  - printed publication – paper summary with attached CD containing thematic Annexes on specific occupational health and safety issues, for example, assessment of occupational risk, distribution of occupational risk factors, training of employees on occupational health and safety issues, occupational diseases, accidents at work, working environment of youth, including awareness, working conditions of self-employed persons and other);

Two large-scale Studies regarding occupational health and safety and legal labour relations have been conducted so far in Latvia, "Work conditions and risks in Latvia, 2005–2007" and "Work conditions and risks in Latvia, 2009–2010". In these Studies the main accent was set on the fact that no noteworthy and wholesome studies have been carried out, which could reveal occupational health and safety situation in Latvia and could help in adoption of justified and effective decisions. Therefore, any changes and reforms within the occupational health and safety system were frequently based on requirements provided in European Union directives.

Upon conducting of the first Study "Work conditions and risks in Latvia, 2005–2007" the goal was creation of analytic base in the field of occupational health and occupational safety to be serving as basis for adoption of rational and effective decisions for the creation of employment and social policy programmes and provision of sustainable development policy. This in its turn would promote development of Study result-based occupational health and safety policy programmes to be integrated in the programmes of state employment and social policy programmes thus creating preconditions for balanced and sustainable development of the state providing regional development, as well as improvement of social dialogue, work conditions and gender equality.

In its turn the main objective of the Study "Work conditions and risks in Latvia, 2009–2010" was to repeat the previous study in order to reflect work conditions and risks in dynamics. In the additional study attention was paid, if any and what impact on legal labour relations and occupational health and safety in the companies was caused by the economic situation (including illegal employment and "envelope wages") and operation of the company under conditions of crisis. Survey of the residents of Latvia was not use for the conducting of this Study.

View of the Study "Work conditions and risks in Latvia, 2012–2013" is aimed at awareness of employers, employees and residents on work conditions and risks and the development thereof in dynamics. Target groups of the study were employers, employees, residents of Latvia and occupational health and safety specialists. New study methodology was also introduced in relation to clarification of the opinion of occupational health and safety specialists – so-called discussions of focus-groups. This Study also provided opportunity to compare in dynamics data of the survey of the residents of Latvia conducted in 2006, as well as to assess impact of contemporary business environment on occupational environment (for example, the wide operation of micro-enterprises etc.) and situation of separate groups of employees (for example, youth). Researching the work conditions and risks in different aspects size (by number of employees) and operating duration of company, different types of property rights (for example, proportion of local and foreign capital in the company, whether the company is public or private and other criteria), sector of the company, operational region of the company, as well as participation of the company in employers' organizations has been examined.

Results of the Study reflect occupational risk factors of the companies in dimension by sectors, as well as from the point of view of both employees and employers. Opinion of employees, employers and permanent residents of Latvia on compliance with legal requirements in te company regarding occupational health and safety (if training and instruction of the employees has been performed in the workplace, if individual protective equipment is being used and other) was extracted separately, and the possible barriers and problems which prevent following the legislation were also pointed at. Results of the Study reflect also opinion of the occupational health and safety specialists regarding occupational environment in Latvia and requirements of legislation.

The Study has resulted in development of practical recommendations on necessary changes in the legislation, as well as other measures (preventive, information, inspection, punishing and other) to be taken in order to promote improvement of work conditions in companies reflecting also the aspects of occupational health and safety and labour relations regarding of which there is lack of information for the employers and employees.

The Study "Work conditions and risks in Latvia, 2012–2013" included the following activities:

- analysis of databases currently existing in Latvia;
- employers survey and employees; analysis and summarization of the obtained results of the surveys of the residents of Latvia;
- focus group discussions among occupational health and safety specialists;
- Objective assessment of working conditions and occupational risks.

Obtained results of the Studies have been summarized in publication and thematic Annexes attached to the publication in CD format. See the Appendix 1 of publication "Content of CD attached to the publication" for list of thematic Annexes.

2 Methodology of the study

2.1 Justification of selected methods

The Study "Work conditions and risks in Latvia, 2012-2013" comprised several activities and various methods (this Chapter describes only the most significant methods, more information available in the thematic Annexes "Summary of the surveys" and "Objective assessment of working conditions and occupational risks – laboratory measurements of the working environment"). Combination of methods ensured obtaining of both objective information and subjective opinion of different interested parties, reflection of opinion of individuals regarding occupational health and safety situation and legal labour relations in Latvia. Thus, the obtained results give a more realistic view on situation in Latvia in 2012-2013, as well as changes that have taken place during the latest 15 years, but especially in comparison with the situation in Latvia in 2005-2007 and 2009-2010.

Following activities, methodology of which is described in this Chapter, were carried out during the Study:

1. analysis of databases currently existing in Latvia;
2. employers survey and employees; analysis and summarization of the obtained results of the surveys of the permanent residents of Latvia;
3. focus group discussions among occupational health and safety specialists;
4. objective assessment of working conditions and occupational risks (analysis of the database of laboratory measurements).

2.2 Summary of the carried out surveys and discussions

Several surveys were carried out in the frames of the Study "Work conditions and risks in Latvia, 2012-2013": surveys of employers, employees and permanent residents of Latvia, and questions were related to working conditions and occupational risks within enterprises (see Table 1).

Table 1. Summary of carried out surveys and discussions

No.	Name of the survey	Field work commencement date	Field work completion date	Number of surveyed respondents	Method of survey	Notes
1.	Survey of employers and their representatives	18.01.2013	11.03.2013	1044 employers	Computer Assisted Telephone Interviews (CATI)	
2.	Survey of employees	4.01.2013	20.02.2013	2558 employed persons, including 2383 – employees and 175 – self-employed	Computer Assisted Personal Interviews (CAPI)	Problems in relation with definition of target group (all employees, employees and self-employed, "pseudo" self-employed, because people often are registered as self-employed, but actually work as employees) were identified within the questionnaire preparation stage of the Study „Work conditions and risks in Latvia, 2005-2007". Due to abovementioned reasons recruitment questionnaire was created in the beginning of questionnaire allowing the interviewers distinguish the "pseudo" self-employed persons from self-employed persons (see the Questionnaire of employees for more detailed information). Similar approach was used also in 2010 and 2013 resulting in this survey actually comprising 2 surveys – employees survey and survey of self-employed.
3.	Permanent residents of Latvia	9.01.2013	28.01.2013	1012 permanent residents of Latvia	Computer Assisted Personal Interviews (CAPI)	
4.	Focus group discussions among occupational health and safety specialists	4.02.2013	08.02.2013	4 FGD	Discussions of focus groups (FGD)	Representatives of the competent institutions of occupational health and safety (service providers), competent specialists of occupational health and safety (individual service providers) and occupational health and safety specialists having higher education (from companies of dangerous sectors)

A special sub-survey was developed for each group of respondents; however, all questionnaires contained an identical general part and equal questions in order to analyze occupational risks, working conditions, and compliance with legal labour relations, awareness and other topics per each group and

to compare the results. Besides, each group had to answer specific questions, for example, employers and their representatives were asked about participation in different employers' organizations (for example, in the LDDK, associations of sectors).

Following questions were included in the surveys – awareness on working conditions and occupational risks, special aspects of working conditions and occupational risks, opinion regarding working conditions within the respective enterprise, including working time (overtime work, time for work and time for relaxation, reduced working hours), compliance with legal labour relations in the enterprise, conclusion of employment contracts, compliance with occupational health and safety legislation within the enterprise (on-site training and instructions, use of individual protective equipment), probable obstacles, problems delaying implementation of occupational health and safety measures (economic and legislative problems, lack of knowledge or information), attitude towards occupational safety and its importance within the enterprise, employment contract options available and their use in the labour market (e.g., reduced working hours), representation of employees regarding solutions of occupational health and safety issues (e.g., trusted representatives and/ or membership in trade unions) and obstacles etc.

Drawing up different questionnaires of the Study "Work conditions and risks in Latvia, 2012–2013" selection of the questions was based on following principles:

1. Possibility to analyze the data in comparison with the Studies conducted in 2005-2007 and 2009-2010 "Work conditions and risks in Latvia" therefore no principles of drawing up of the questionnaires of the previous Study have been indicated in this publication.

During coordination process of the questionnaires the Client – LDDK, as well as the interested parties (Ministry of Welfare of the Republic of Latvia and VDI) expressed the wish to obtain maximum amount of data which can be compared in dynamics – such a condition would be set as the basic goal of the Study. It must be noted that this provision conformed to study conducted in 2009–2010, but significantly differed from the provisions of the study conducted back in 2005–2007, when the accent was put on acquisition of general data on situation in Latvia, as well as on yet unstudied aspects of occupational health, occupational safety and legal labour relations. Due to the abovementioned reasons exactly the same formulations of questions as in the previous Studies were retained within limits also during the coordination process of questionnaires for the Study "Work conditions and risks in Latvia, 2012-2013", adding them with several topical questions, as well as refusing of use of several questions previously less used in data analysis. Wherewith opportunity to conduct situation analysis in dynamic was retained by prolonging the period of time analysed within the Study for 4 additional years (the existing Study within limits comprises time period from 1995 to 2012).

2. Provision of the Client and cooperation partners

During the drawing up of the questionnaires the Client (LDDK) expressed wish to obtain more information regarding impact of the new business tendencies and forms on occupational health and safety and legal labour relations (situation in micro-enterprises and enterprises – micro-enterprise tax payers), as well as compare in dynamics data obtained in 2009-2010 about impact of the improvement of economic situation on working environment.

Pursuant to the wishes of the Client's cooperation partners (Ministry of Welfare of the Republic of Latvia and VDI) data were collected also on such occupational risk factors or occupational health and safety problems that no attention was paid to during the previous Study or in relation of which no sufficiently detailed information was available (for example, lighting, updated information on impact of chemical substances, action in cases of accidents of situations involving potential infection risk,

involvement of employees in the improvement of their working environment, complaints on pain or inability of work, situation regarding such groups of employees, as expectant mothers and disabled persons etc.).

The obtained results were analysed from several aspects:

- From the employers/ employees point of view;
- Per sector (according to *NACE* classifier);
- Per size of an enterprise (number of employees);
- Per the foundation year of the enterprise;
- Per type of ownership of the enterprise;
- Per sex of a respondent;
- Taking into consideration ethnic aspects (nationality);
- Per region (in order to provide opportunity of situation analysis in dynamics the analysis was conducted according to both the previous regional (Kurzeme, Zemgale, Southern, Northernvidzeme, Easternvidzeme, Latgale and Riga Regions), and the current division of the State Labour Inspectorate (Kurzeme, Zemgale, Vidzeme, Latgale and Riga Regions);
- Per participation of employers in non-governmental organizations.

During the Study focus group discussions among occupational health and safety specialists were conducted for the first time in Latvia aimed at determination of the opinion of specialists working in Latvia on requirements of specific legislation. Target group of the focus group discussions consisted of representatives of the competent institutions (service providers), competent specialists (individual service providers) and occupational health and safety specialists having higher education (from companies of dangerous sectors). Four discussions of focus groups were conducted in total with involvement of following focus groups:

• Riga, competent institutions (service providers);
• Riga, competent specialists (individual service providers);
• Riga, occupational health and safety specialists having higher education (from companies of dangerous sectors);
• Daugavpils, target group of the groups 2 and 3.

More detailed information on surveys (size of a selection, forming of a selection, general population, data weighing, etc.) and discussions of focus groups, as well as questionnaires and guidelines of the discussions of focus groups, are available in the thematic Annex "Summary of carried out surveys and discussions", but results of the surveys and discussions and their analysis are included in other thematic Annexes. Besides, issues of charts and tables with surveys are available in the LDDK. Values indicated in charts are mathematically approximated without the decimal places, therefore in separate cases total of per cent may be other than 100.

2.3 Objective assessment of working environment

Adopting the Labour Protection Law, occupational risk assessment was recognised as being one of the cornerstones of occupational health and safety system. During occupational risk assessment special attention should be paid to laboratory measurements, which give an objective picture of various occupational risks, for example, concentration of chemical substances, dust and asbestos fibres in the air of working environment, levels of noise, vibration and lighting, microclimate parameters, etc. Laboratory measurements should be carried out not only to assess probable impact of occupational risks on employees health, but also to identify more accurately the necessary occupational health and safety measures and to define their priority, including choosing appropriate personal protective equipment and more accurate defining range of employees exposed to respective occupational risk, as well as necessity and scope of compulsory medical examinations.

In the frames of the Study a database of measurements carried out by Hygiene and Occupational Diseases Laboratory of the Institute of Occupational Safety and Environmental Health of the Rīga Stradiņš University was complemented with additional measurements and analysed.

The following criteria for inclusion of an enterprise and respective measurements in the database were applied:

- received application on the enterprise and carried out laboratory measurements of working environment in the Hygiene and Occupational Diseases Laboratory of the Institute of Occupational and Environmental Health of the Rīga Stradiņš University between 1 January 1995 and 31 December 2012.

The following criteria for non-inclusion of an enterprise and respective measurements in the database were applied:

- Measurements are carried out by the Hygiene and Occupational Diseases Laboratory of the Institute of Occupational and Environmental Health of the Rīga Stradiņš University, but the examined object/ environment does not belong to working environment (e.g., testing of cosmetics);
- No accurate data on the specific workplace or no detailed description of the working process, where laboratory measurements of working environment are carried out, are available;
- No regulating parameter of the risk is determined in Latvian legislation or no regulating value can be found in international documents (e.g., ISO Standard).

The database comprises measurements of 11 measurement types of physical factors – it contains information on factor measurements carried out in 47 297 workplaces (levels of noise, vibration, lighting and such). Following risk factors were determined most frequently:

- Micro-climate – 16,191 assessments (4 various indicators: relative air humidity – in 5525 workplaces, air temperature – in 5578 workplaces, air velocity – in 5546 workplaces);
- Lighting – in 16,191 workplaces;
- Noise level was measured in 9570 workplaces (4 different parameters: equivalent noise level – in 8993 workplaces, 8h mean equivalent noise level – in 8499 workplaces; maximum noise level – in 9570 workplaces, peak sound pressure – in 9570 workplaces);
- Whole-body vibration – measurements carried out in 2462 workplaces;
- Hand-arm vibration - measurements of 1784 workplaces.

The database comprises wide-ranging information on chemical substances – altogether 95 chemical substances are included in the database, measurements of which were carried out in more than 7000 workplaces, however, number of studied workplaces in which measurements were carried out (for simplification hereinafter – number of measurements) per each chemical substance differs a lot – from 1 measurement (workplaces) for some chemical substance to several hundreds of measurements for other substances. Thus, for some chemical substances the number of measurements is sufficient to assess the objective situation, but for others – insufficient (research group assumed that at least 100 measurements were necessary in different work places to perform the summarizing analysis).
See the thematic Annex "Objective assessment of working conditions and occupational risks – laboratory measurements of the working environment" for details.

1.2.1 Databases

The following data were analysed within the framework of the Study "Work conditions and risks in Latvia, 2012-2013":

- Latvian State Register of Occupational Disease Patients and People Exposed to Ionising Radiation due to Chernobyl NPP Accident – for more details please refer to the thematic Annex "Occupational diseases in Latvia, 1993 – 2012" and thematic Annexes on specific risk factors and sectors;
- The State Labour Inspectorate – data on workplace accidents (for more details please refer to the thematic Annex "Workplace accidents, 1993 – 2012" and thematic Annexes on specific risk factors and sectors);
- VSAA data on costs of workplace accidents or occupational diseases (for more details please refer to the thematic Annex "Compulsory social insurance for workplace accidents and occupational diseases").

Data of the Latvian State Register of Occupational Disease Patients and People Exposed to Ionising Radiation due to Chernobyl NPP Accident. Data on occupational diseases is available at the Latvian State Register of Occupational Disease Patients and People Exposed to Ionising Radiation due to Chernobyl NPP Accident. At the time of this Study, the Register operated under P.Stradins Clinical University Hospital (KUS). Similarly as in the previous studies, it is important to note that direct public access to general analytic data from the Register is not possible, and such information is only reflected in separate official publications. Data from the Register can be obtained upon individual request, but no deliverance criteria have been set for such requests (for example, costs, duration of deliverance, types of data analysis, types of available and not available data, etc.). Besides, the Centre of Occupational and Radiation Medicine does not carry out regular situation analysis of occupational diseases. The main functions of the Centre focus are related to establishing linkages between the diagnosis and occupation, not situation analysis. Both Studies "Work conditions and risks in Latvia", in 2005-2007 and 2009-2010 identified a number of outstanding issues in the operations of the Register, which prevent full and effective registration and processing of data in the Register and are typical also to the situation in 2012. Following issues should be mentioned among the most important ones:

- Working with databases is complicated, it requires special training and resources;

- Working with databases is time consuming, but data entry and analysis has been designated just to one person on a part time basis (on project basis other staff members, who have been trained to use the databases of the Centre, are also involved, however, in general this indicates on lack of the Register capacity);
- No regular analytic reviews on occupational diseases in Latvia are being formed.

See the analysis of data in the results section of the thematic Annex "Occupational diseases in Latvia, 1993 – 2012", as well as thematic Annexes for sectors, for example "Work conditions and risks in construction sector in Latvia", and on occupational risk factors, for example, "Noise".

Data of the State Labour Inspectorate. The Study analysed the information prepared by the Cooperation and development department of the State Labour Inspectorate providing also public availability of these data upon compilation of Annual reports of the State Labour Inspectorate. Such reports are available from 1995:

1. Annual reports for 1995–2001 are available only in hard copies at the archive of the State Labour Inspectorate and the National Library of Latvia;
2. Annual reports for 2002–2012 are available electronically from the website of the State Labour Inspectorate (http://www.vdi.gov.lv/lv/par-mums/parskati/) and Latvian Focal point of the European Agency for Safety and Health at work (http://osha.lv/lv/statistics).

Legislation regarding the public annual report of public institutions has changed between 1995 and 2012; currently Annual reports of the State Labour Inspectorate are prepared according to the Regulations of the Cabinet of Ministers No. 413 "Regulations on Public Annual Reports", adopted on 05.05.2013. due to the abovementioned reasons their outline and contents differ from year to year. Generally the public reports contain basic information on the State Labour Inspectorate, report of financial resources and operating results, staff information, communication with society, as well as Annexes:

Annex 1. Overview – analysis on workplace accidents;

Annex 2. Overview on initial occupational disease patients and causes of occupational diseases.

VSAA data. According to the Law on Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases (adopted in 02.11.1995), the State Social Insurance Agency administrates payments of insurance compensations to the workers who have been victims of workplace accidents and who according to the decision of a special medical committee have been recognised to suffer from an occupational disease. Data on payments and
reasons (for example, costs of acquisition of artificial limbs; escort; travel costs to visit medical establishments; purchase and repairs of technical accessories; medical costs; medical care; medical and professional rehabilitation) are available from the Health Care and Rehabilitation Section of the State Social Insurance Agency (70a Lacplesa Street, Riga) for the period starting from 01.01.1997, when the Law came into effect.
Data from the Study "Work conditions and risks in Latvia, 2009-2010" for the time period until 2009 were used within this Study. Majority of data is available on the website of the State Social Insurance Agency (www.vsaa.lv) – information is available both as absolute numbers and graphical reproduction.

Data on additional compensations granted to the insured persons after workplace accidents or occupational disease were requested from the VSAA. In July of 2012 granting and payment of

additional expenditure compensations started in the new information system, and the range of available statistical data has changed. Following data was acquired upon request and further analysed within the Study:

- Number of beneficiaries of additional expenditure compensations, 2010-2011;
- Number of approved decisions, 2010-2011;
- Number of insurance indemnities and total expenditure by types of insurance indemnities, 2010-2011;
- Expenses for preventive measures from the Special Workplace Accident Budget, 2000-2012.

1.2.2 Research and studies carried out in Latvia

Studies carried out in Latvia between 1991 and 2012 can be divided into two major groups – studies and research carried out specifically in Latvia, and studies and research carried out within frameworks of larger studies in Latvia and abroad. Even though a number of separate studies have been carried out in Latvia, mostly results of studies cannot be compared in dynamics (different studies have covered different respondent groups; companies of different sizes or from different sectors have been inspected or survey questions have been formulated differently in questionnaires); in addition no accurate data are available, if the studies and research have been carried out in multiple member states of the European Union. Since the main objective of the Study "Work conditions and risk in Latvia, 2012–2013" was to response to the question, if and how the situation in the fields of occupational health and safety or legal labour relations has changed in Latvia since 2005, research group attempted to use identical research methods within limits, as well as unchanged questions of the surveys to provide information through the obtained data. This allows assessing, if and how the adopted decisions and development of the state has affected situation nationwide in the fields of occupational health and safety and legal labour relations.

Fact that its is hard to use results of the Studies (if any conducted) should still be mentioned as a significant problem, since no access to all studies together carried out in Latvia in the areas of occupational health, occupational safety and legal labour relations – this refers to the studies conducted by both the Latvian Council of Science, and separate institutions of higher education. These results (including results of doctoral theses) are available on websites of separate institutions of higher education, often – in presentation format only or in separate publications (conference materials, stand reports, publications and such). Therefore they are practically available neither in libraries, nor institutions, which should use study results in their daily work, for example, Ministry of Welfare, VDI, Institute of Occupational and Environmental Health of Rīga Stradiņš University), and this prevents provision of summarized conclusions and recommendations, as well as use of results for the situation assessment and policy planning.

Situation has improved slightly in separate cases, and results of large part of the studies carried out in the recent years are available on the Internet, both on the websites of separate institutions (for example, Latvian Focal point of the European Agency for Safety and Health at work www.osha.lv; the Ministry of Welfare of the Republic of Latvia www.lm.gov.lv; the State Labour Inspectorate www.vdi.lv; Free Trade Union Confederation of Latvia (LBAS) www.lbas.lv).

All the research and studies identified are summarised in the thematic Annex "Analysis of completed studies and overview of similar studies", but results of available studies and research have been integrated in the thematic Annexes in order to enable a possibility to compare the situation development in Latvia in dynamics.

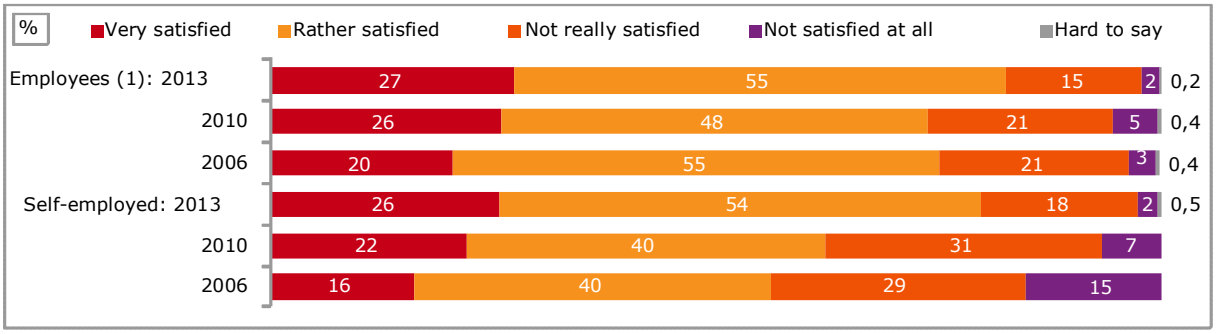
3 Results of the study

3.1 Job satisfaction and satisfaction with work conditions

3.1.1 Job satisfaction

Job satisfaction is a term describing feelings of the humans towards their work to be done. Job satisfaction can be affected by many factors – for example, quality of physical working environment, relations with the direct manager, ability to complete the assigned tasks etc. Job satisfaction is very important for contribution to more productive and efficient performance. Results of the Study "Work Conditions and Risks in Latvia, 2010-2013" demonstrate that employees, just like in the previous studies, have generally slightly higher job satisfaction than self-employed (see Figure 1). More or less satisfied with their current jobs are 82.5% of employees (in 2010 – 73.9%) and 79.7% self-employed (in 2010 – 62.3%); results of the Study in dynamics show that the number of satisfied persons has grown both among the self-employed and employees.

Figure 1. Job satisfaction among employees and self-employed.



Note: basis – employees, in 2006: n = 2455; 2010 : n = 2378, 2013: n=2383; self-employed, in 2006: n = 65; in 2010 : n = 127, in 2013: n=175.
Source: Employees survey and self-employed.

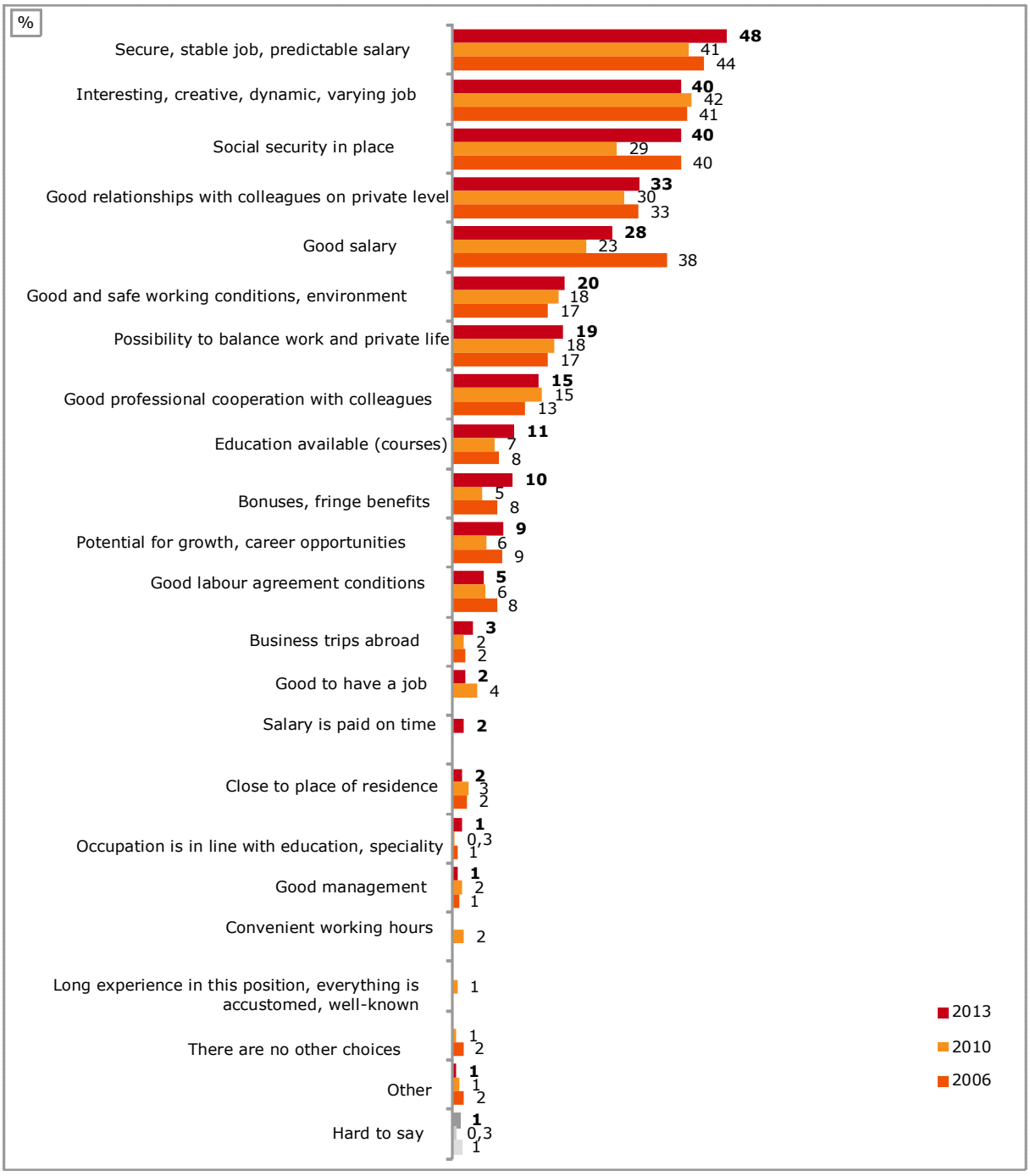
In comparison with data of the previous studies there are differences among employees regarding dissatisfaction with job in different sectors. If the highest rate of dissatisfaction was in mining and quarrying (in 2013 – 11.6%, in 2010 – 98.1%,), water supply, sewerage and waste management (in 2013 – 27.1%, in 2010 – 88.0%), as well as in health and social care enterprises (in 2013 – 22.3%, in 2010 – 86.7%) in 2010, then in the study data of 2013 show that most often dissatisfaction with job was noted by the employees of manufacture of textile and clothing products (42.2%), manufacture of wood, products of wood and cork and of furniture (30.2%), water supply, waste management (27.1%). Whereas, in comparison with the data of studies of 2010 in 2013 situation with self-employed has significantly improved in agriculture and forestry, because only 17.5% of self-employed from this sector are unsatisfied with their current job (in 2010 – 37.7%). There is similar tendency in the study of 2013 – women indicate a slightly higher job satisfaction (in 2013 – 83.2%, in 2010 – 74.9%, in 2006 – 73.4%) than men (in 2013 – 81.8%, in 2010 – 72.4%, in 2006 – 76.3%), in addition, analysis in dynamics shows that increasing number of both women and men is satisfied with their current job. Tendency remains that situation among self-employed is opposite (men: in 2013 – 82.4%, in 2010 –

64.4%, in 2006 – 59.5%; women: in 2013 – 76.3%, in 2010 – 60.0%, in 2006 – 52.5%), but positive tendencies in dynamics must also be noted – satisfaction with the current job is increasing among self-employed. Highest rates of satisfied workers occur among the young workers aged 25 – 34 (18–24 years: in 2013 – 83.5%, in 2010 – 81.3%, in 2006 – 81.4%; 25–34 years: in 2013 – 85.9%, in 2010 – 71.8%, in 2006 – 74.2%; 35–44 years: in 2013 – 81.0%, in 2010 – 73.9%, in 2006 – 78.2%; 45–54 years: in 2013 – 80.3%, in 2010 – 71.3%, in 2006 – 70.7%; aged 55– 80 (until 2010 – 74) years: in 2013 – 83.4%, in 2010 – 75.9%, in 2006 – 73.6%), but generally rates of satisfied workers exceed 80% in all age groups, furthermore, observing the data in dynamics, a tendency of growing satisfaction appears along the years in all age groups. Data analysis by ethnical background shows that ethnic Latvians have higher job satisfaction (in 2013 – 85.4%, in 2010 – 77.6%, in 2006 – 79.2%) than Russians (in 2013 – 76.8%, in 2010 – 66.5%, in 2006 – 68.3%) and other ethnic groups (in 2013 – 77.8%, in 2010 – 69.5%, in 2006 – 70.2%), in addition it must be noted that data of the study of 2013 show the highest rates of job satisfaction among individuals with different ethnic background in comparison with data of 2010 and 2006.

Analysis of causes on satisfaction of people with their current jobs, differ between employees and self-employed (see Figures 3 and 4). Similarly as in previous studies, also in 2013 among self-employed the most often mentioned reasons are "*I like the work that I do" (interesting and creative work)*, "*being more independent (I am my own boss regarding working hours, load and work organization*", and *"Ability to balance work and private life*". These can be regarded as the main reasons, why people opt for self-employment. In contradistinction of the surveys of self-employed persons in 2013 and 2010 in 2006 "*possibilities to earn more"* was also mentioned among the most frequent reasons. Whereas the most often mentioned reasons among employees with job satisfaction in the survey of 2013 are "*job security and stability, stable salary*", "*interesting, creative, dynamic and diverse job*", "*pleasant social contacts with colleagues*", "*social guarantees*", "*good salary*". It must be noted that in comparison with the data or previous studies, in 2013 "*interesting, creative, dynamic and diverse job*" has moved down by one position from the top position, whereas the top position is taken by "*job security and stability, stable salary*". This indicates on change of priorities of the employees after the recent economic crisis, i.e., stable job with stable income is important to people. Employers must provide and improve all these conditions, especially "*job security and stability, stable salary*", "*interesting, creative, dynamic and diverse job*", "*social guarantees*" to attract new staff and motivate the existing ones. In comparison with surveys of 2010 the rate of respondents indicating "*social guarantees*" and "*good salary*" as the main reasons of satisfaction has slightly grown in 2013 staying lower than in 2006, and this should be related to the fact the employees with legal and stable remuneration were socially more protected during the economic crisis receiving unemployment benefits, and they may have accumulated savings.

Regarding the survey of self-employed it must be indicated that these data mark only the main tendencies, because the number of respondents is too low for statistically important conclusions.

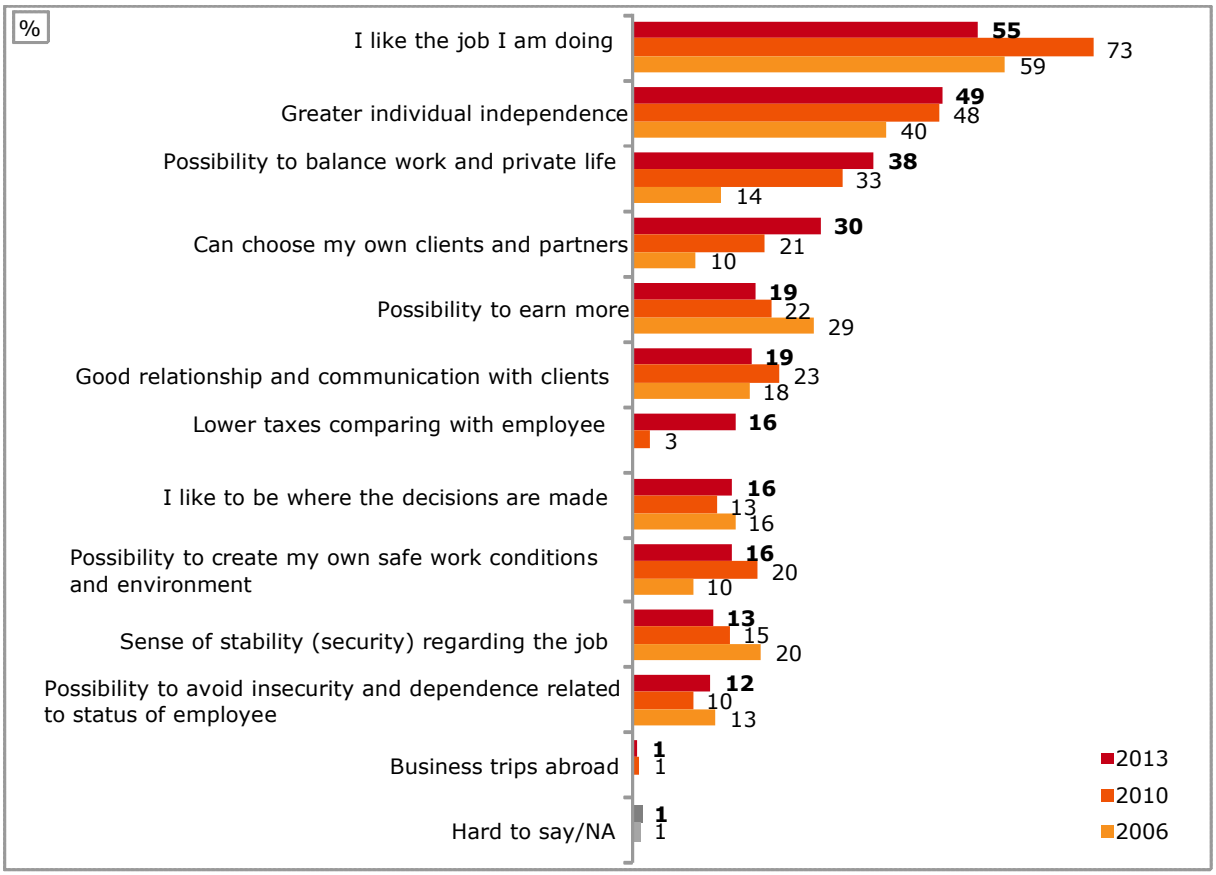
Figure 2. Factors contributing to high job satisfaction among employees.



Note: basis – employees satisfied (very satisfied or rather satisfied) with their current job, in 2006: n = 1841; in 2010 : n = 1865; in 2013: n=1964.

Source: Employees survey.

Figure 3. Factors contributing to high job satisfaction among self-employed.



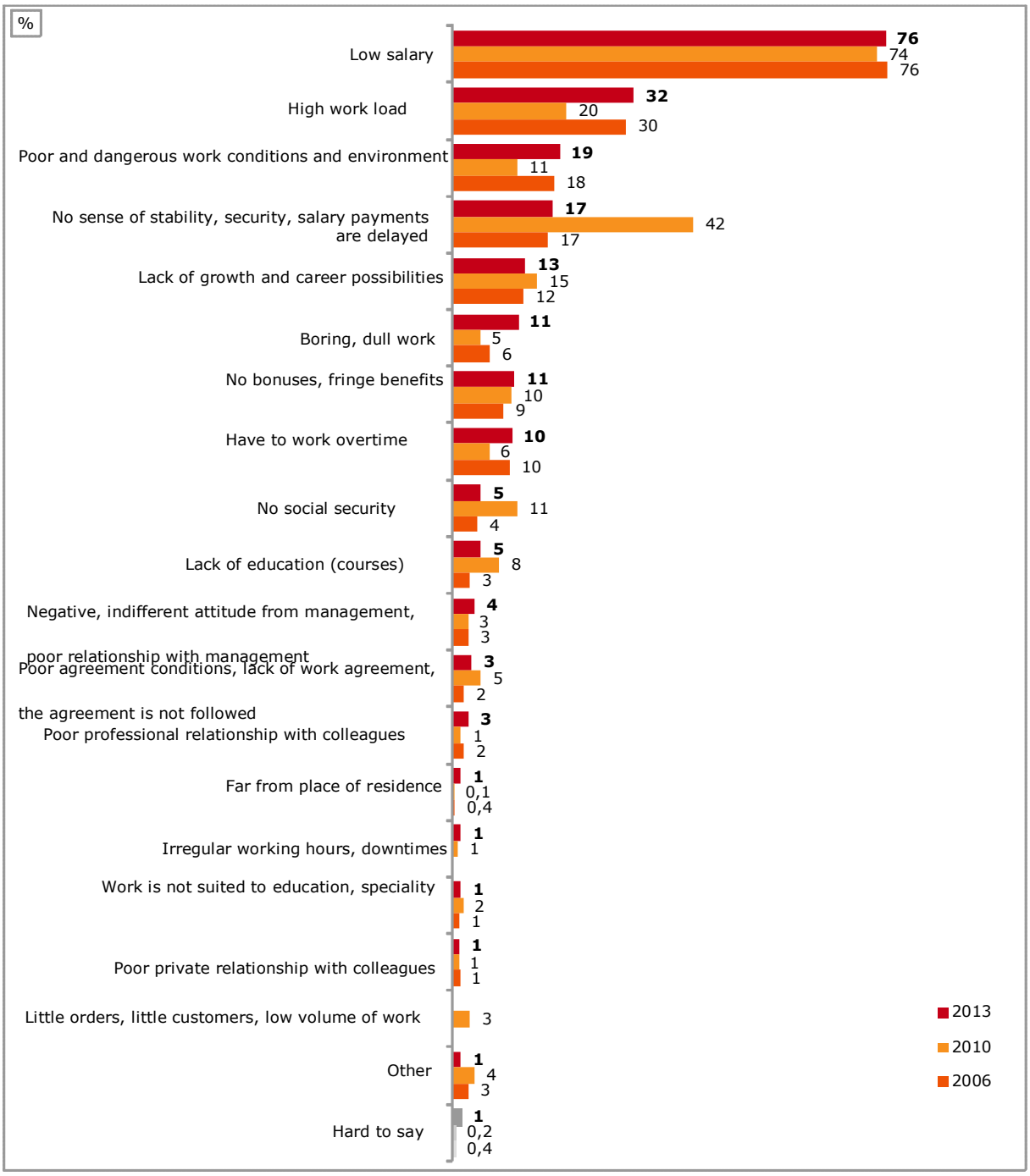
Note: basis – self-employed satisfied (very satisfied or rather satisfied) with their current job, in 2006: n = 38; in 2010: n = 78; in 2013: n=139.

*Data outline the main tendencies, because number of respondents is too low for statistically important conclusions.

Source: Survey of self-employed.

Also, the main reasons why employees and self-employed are not satisfied with their current job have been analyzed (see Figures 4 and 5). Similarly as reasons of satisfaction, the reasons of dissatisfaction are also different. Also, in 2013 among self-employed the most often mentioned reasons are "*lack of stability and sense of security*", "*low salary*" and "*too high taxes*". As in the previous studies, employees much more frequently mention "*low salary*" (in 2013 – 75.9%, in 2010 – 74.5%, in 2006 – 76.2%). In 2013 in comparison with the studies of previous years the reasons of dissatisfaction more frequently mentioned by the employees are: "*high workload*", but significantly less – "*lack of stability and sense of security, salary is not paid on time*". However, negative tendency can be observed among employees, because, contrary to data of 2010, number of the employees having mentioned "*bad and insecure working conditions, problems with working environment*" as the reason of their dissatisfaction with job has increased, and this shows that, despite the operation of Labour Protection Law for over 10 years, nearly every fifth employee faces bad, unsafe work conditions and poor working environment. However, it must be noted that fact that the employees are able to detect and assess incompliance of the working conditions and working environment with the requirements and that they are aware of criteria of good conditions should be assessed positively.

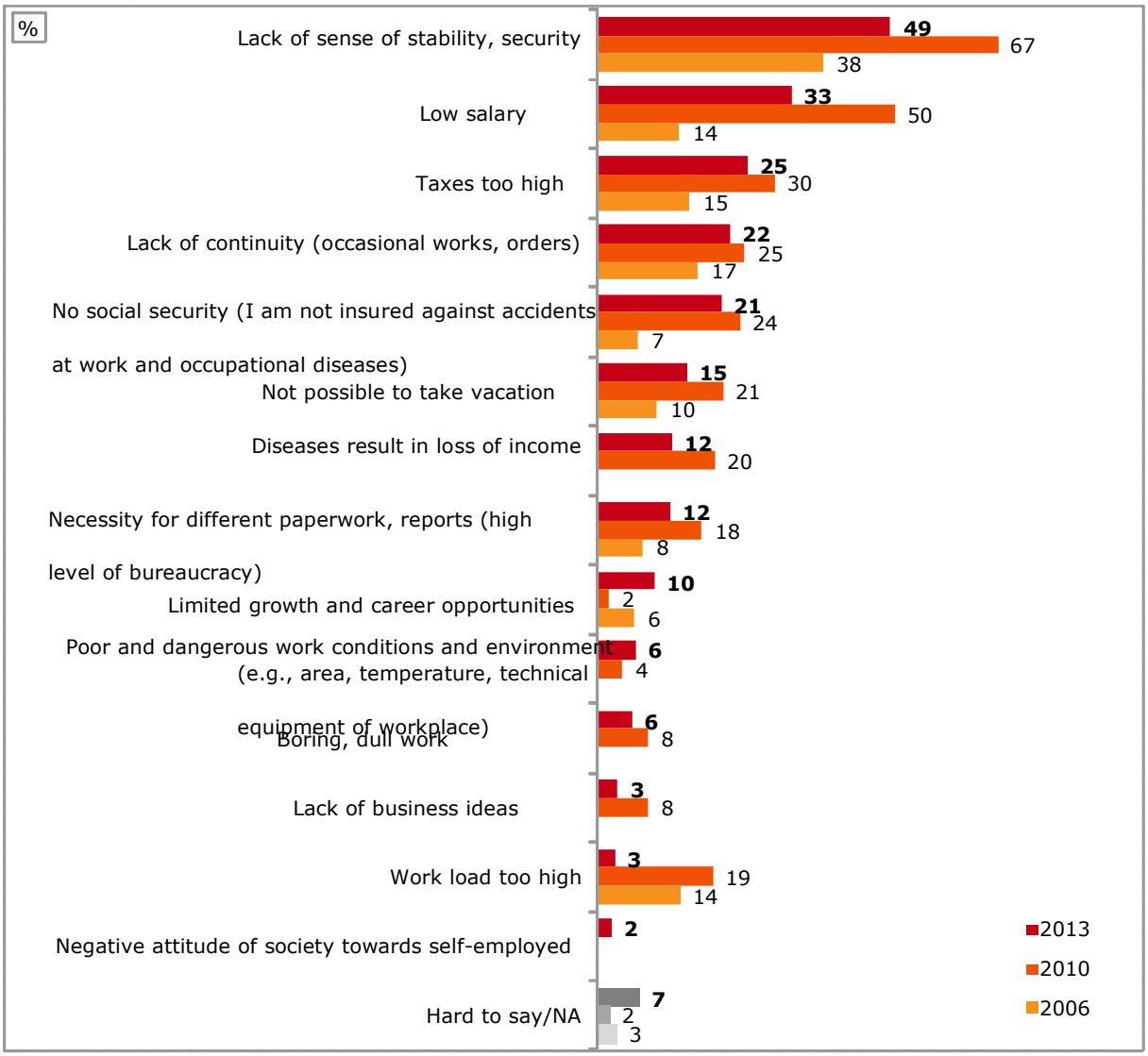
Figure 4. Factors contributing to low job satisfaction among employees.



Notes: basis – employees dissatisfied (not really satisfied or not satisfied at all) with their current job, in 2006: n = 605; in 2010: n = 502; in 2013: n=415.

Source: Employees survey.

Figure 5. Factors contributing to low job satisfaction among self-employed.



Note: basis – self-employed dissatisfied (not really satisfied or not satisfied at all) with their current job, in 2006: n = 27*; in 2010: n = 49*; in 2013: n=35*.

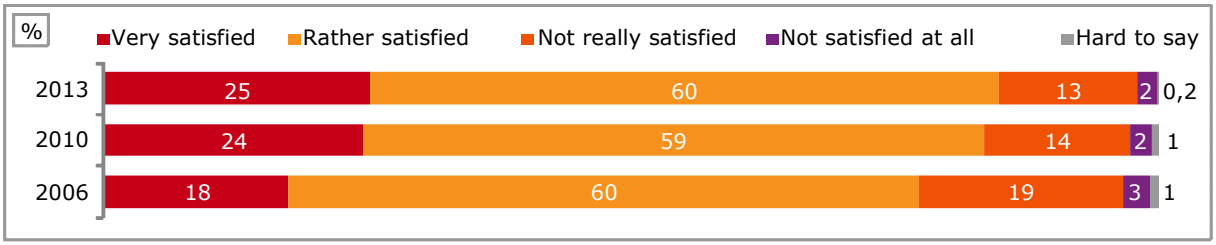
*Data outline the main tendencies, because number of respondents is too low for statistically important conclusions.

Source: Survey of self-employed.

3.1.2 Satisfaction with working conditions and working environment

Analyzing satisfaction of the employees with working environment and working conditions from a perspective of occupational health and safety it is obvious that in comparison of data of all three Studies in dynamics the number of employees satisfied with their work conditions and working environment grows in Latvian and this in general should be considered as a positive tendency (in 2013 – 84.8%, in 2010 – 83.6% and in 2006 – 77.2%). However, it must be taken into account that this does not exclude opportunity that working environment in the enterprises is not completely put in order (see Figure 6).

Figure 6. Satisfaction with working conditions and environment among employees from a perspective of occupational health and safety.



Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

In 2013 the sectors with the highest rate of employees dissatisfied with their working environment and working conditions from a perspective of occupational health and safety occurs in following sectors: manufacture of wood, products of wood and cork and of furniture (in 2013 - 27.7%), water supply, waste management (in 2013 - 20.2%), manufacture of paper and paper products, polygraphy (in 2013 - 20.1%), mining and quarrying (in 2013 – 19.4%), production of food and beverages (in 2013 – 17.5%, in 2010 – 26.3%), manufacture of textile and clothing products (in 2013 – 16.7%), construction (in 2013 – 16.5%, in 2010 – 26.4%), and these indicators are higher than on average in Latvia (15.0%), whereas in sectors like health and social care (in 2013 – 13.3%) and fisheries (in 2013 – 10.7%, in 2010 – 28.7%) the indicators having exceeded the average ones during the previous years in Latvia show that in 2013 employees of these sectors are more satisfied with the working environment and occupational conditions. Whereas in 2006 the highest rate of dissatisfied employees was in companies working in following sectors: manufacture of basic metals and fabricated metal products, machinery and equipment (39.2%), manufacturing (31.3%), manufacture of wood, products of wood and cork and furniture (31.1%), agriculture, hunting and forestry (31.3%). In comparison with the data of previous surveys, in 2013 high rates of employees dissatisfied with occupational environment and working conditions are in manufacture of wood, products of wood and cork and of furniture, as well as in sectors, where previously the number of dissatisfied employees was lower that on average in Latvia, for example, water supply, waste management, manufacture of paper and paper products and polygraphy (in 2013 – 20.1%) and mining and quarrying (in 2013 – 19.4%).

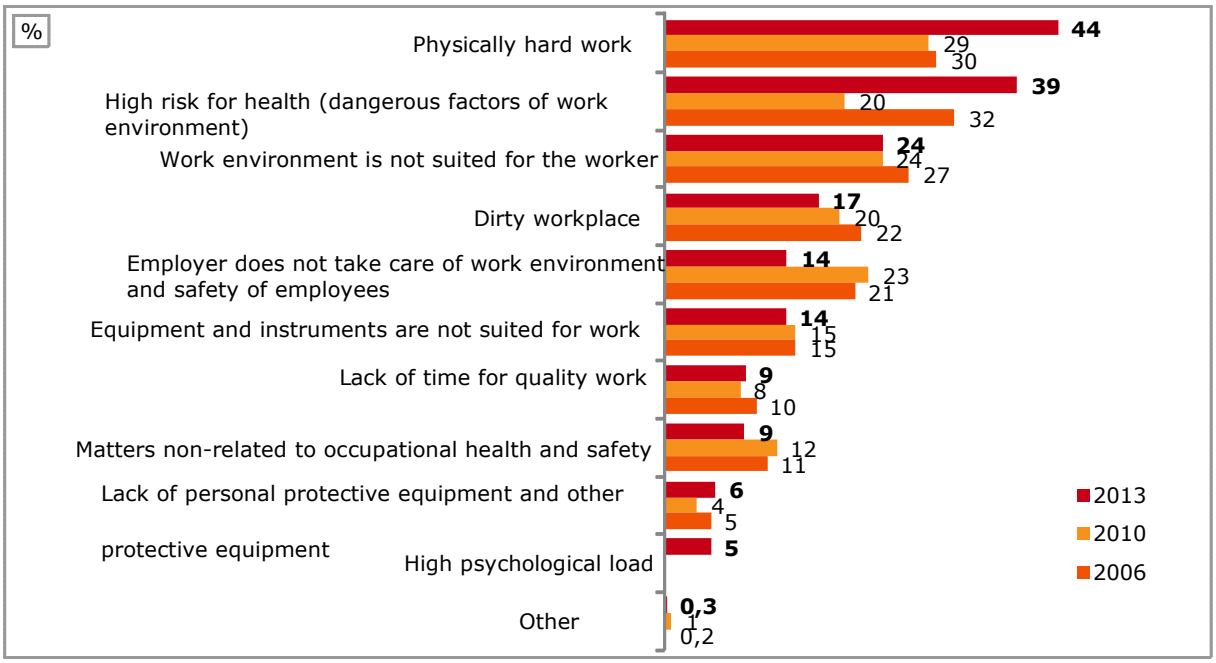
Survey of 2013 also shows that women are slightly more satisfied with working conditions (in 2013 – 86.5%, in 2010 – 82.2%, in 2006 – 78.2%) than men (in 2013 – 82.8%, in 2010 – 85.5%, in 2006 – 76.0%). While in 2010 young people were the most satisfied (aged 18–24 years – 89.4%), respondents of the other age groups are comparably satisfied with working conditions and working environment (in 2010: 82.2–83.5%, in 2006: 76.4–78.3%), then in 2013 the most satisfied were employees aged 25 – 34 years (88.0%), but respondents of the other age groups are approximately equally satisfied with

working conditions and working environment (in 2013: 80.3–87.8%). Reviewing satisfaction of employees with working conditions among respondents of different ethnic background, Latvians are the most satisfied with occupational conditions – 86.4% (in 2013 – Russians – 82.8% and other nationalities – 78.3%), but no significant differences were observed among different nationalities in the surveys of 2010 and 2006 (in 2010: 82.4–83.9%, in 2006 – 76.0%-77.9%)). Satisfaction with working conditions and working environment does not vary significantly among different sized companies (in 2006: 75.0–78.5%, in 2010: 80.6–84.4%, in 2013: 81.8 – 87.9%), however, the highest rate of dissatisfaction with working conditions and working environment occurs among employees of the large companies (81.8%). This could be related to the data of survey showing that employers of large companies are more frequently informed on occupational health and safety issues, including occupational risk factors and their impact on health of the employees, and according to the data of survey employees show that employers in the large companies more frequently do not invest resources in occupational health and safety, and this can result in increased dissatisfaction with the working environment in general. Also, in 2013 the highest number of satisfied respondents occurs in public sector (in 2013 – 87.5%, in 2010 – 87.0%, in 2006 – 80.4%) comparing with the private sector (in 2013 –83.6%, in 2010 – 82.8%, in 2006 – 76.0%, in 2010 – 82.8%, in 2013 – 80.4%) or non-governmental organizations (in 2013 –76.6%, in 2010 – 79.0%, in 2006 – 71.2%). In 2013 also the rates of satisfaction grow along with pay raise in principal work (in 2013 – 79.9% (up to LVL 150) – 89.5% (up to LVL 251 and more); in 2010 – up to LVL 150 - 75.8%, LVL 151–200 – 82.4%, LVL 201–250 – 83.0%, LVL 251 and more – 91.5%; in 2006 – up to LVL 90 – 72.4%, LVL 91–150 – 73.2%, LVL 151–250 – 77.8%, LVL 251 and more – 83.0%). In addition, rates of all Studies show that satisfaction with working conditions are affected also by "envelope salary", because the employees receiving salary in envelope are more dissatisfied with working conditions (in 2013: 86.1% - never, 82.3% - sometimes, 64.4% - every month; in 2010: 86.7% - never, 84.2% - sometimes, 59.6% - every month; in 2006: 79.4% - never, 73.8% - sometimes, 62.7% - every month). This trend indicates that social guarantees and stability of remuneration contributes significantly towards satisfaction with working conditions and working environment, in addition data of survey confirm the fact that companies paying illegal "envelope salaries" (in other words, do not comply with tax regulations) also do not comply with occupational health and safety regulations. Therefore, working conditions and occupational environment in those companies could be worse, for example, employees more frequently work without written contracts of employment, they are less frequently on vacations, they are less frequently informed on occupational health and safety issues, they have more frequently mentioned health disorders caused, in their opinion, by the hazardous factors within the working environment, and other.

Among the main reasons why employees are not satisfied with their working conditions and environment have not changed also in 2013: "*physically hard work*", "*many health risks (occupational risk factors)*", "*dirty working environment*", "*working environment does not suit the needs of workers*", "*the employer does not take care about working environment and occupational safety and health*", and other. It must be noted that the rate of employees indicating on "*many health risks (occupational risk factors)*" has grown significantly. It must be noted that in 2013 "physically hard work" is mentioned more frequently than on average in Latvia by employees of all sectors, except the employees from manufacture of paper and paper products, polygraphy, manufacture of textile and clothing products and construction, and also the other most frequently mentioned reason of dissatisfaction "many health risks" is mentioned more frequently than on average in Latvia by employees of all sectors, except the employees from construction sector, water supply, sewerage and waste management and manufacture of paper and paper products, polygraphy. Data of survey show

that on general this could be related to increase of the awareness level of the employees, as well as with the work specifics in manufacturing sectors, agriculture, forestry and other sectors (see Figure 7).

Figure 7. Factors contributing to low satisfaction with working conditions and environment.



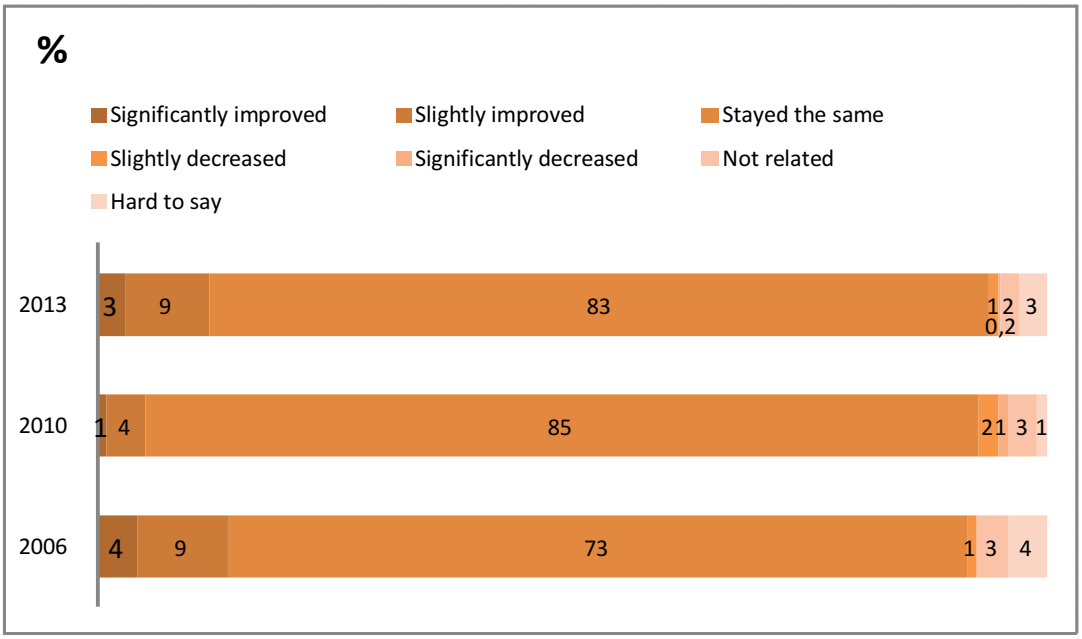
Note: basis – employees dissatisfied with working conditions and working environment, in 2006: n = 541; in 2010: n = 397; in 2013: n=360.
Source: Employees survey.

3.1.3 Opinion of employees on changes in occupational health and safety conditions

The Labour Protection Law and the subordinated legislation entered into force more than ten years ago, and this factor was expected to change both occupational health and safety situation in Latvia and opinion of employees on that issue. Results of all previous surveys have reflected certain changes also from this aspect, however, consequences of the economic crisis (2008-2009) and changes in separate legislation documents generally aimed at the demand of reduction of the administrative burden does not allow their assessment in the long-term.

The employees survey included a question on how the occupational health and safety conditions have changed within the last year in their workplace. In general, it has increased in comparison with 2010, because in 2013 11.5% of the respondents indicated that occupational health and safety conditions at their workplace have improved significantly or slightly (in 2010 – 5.9%, in 2006 – 18.9%) but they do not reach the level of 2006, and this could be explained by the maintenance of the occupational health and safety at the minimum requirement level (for example, instruction is performed, compulsory health examinations are organized, assessment of occupational risks is performed at least at partial level and such), wherewith at the legal requirements are met. In order to reach improvements of situation within this field, employers should be provided with additional motivation to improve the occupational health and safety level (for more details, see Figure 8).

Figure 8. Changes in occupational health and safety conditions in companies over the last year.

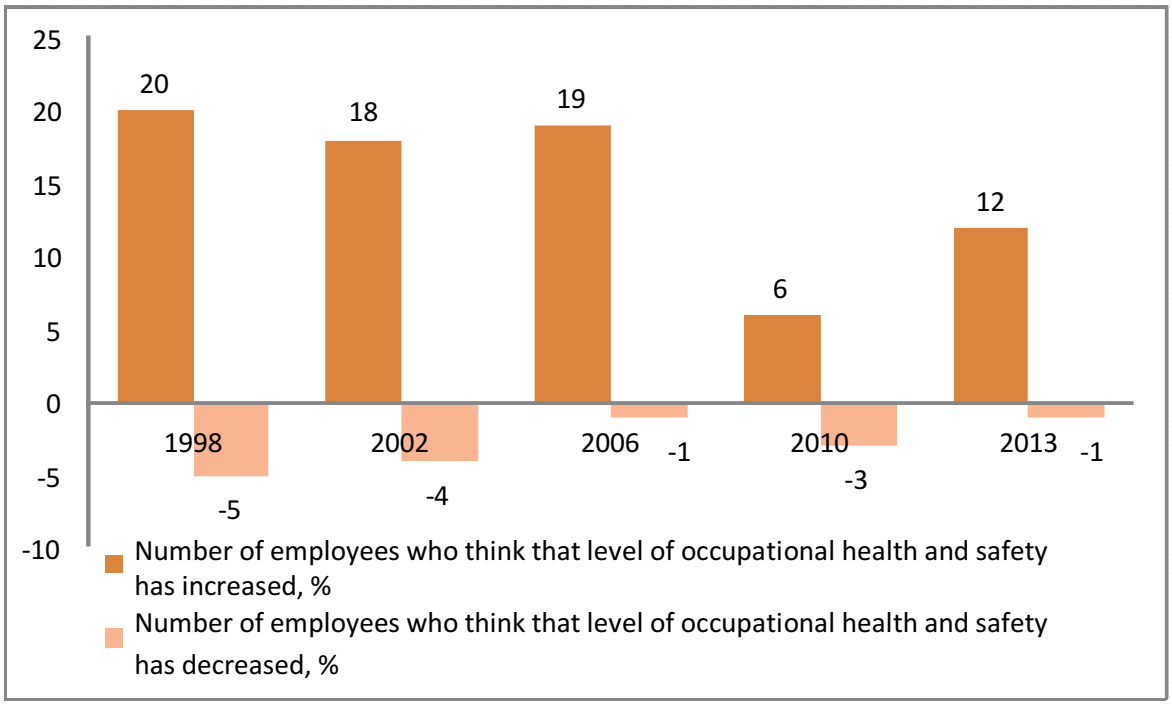


Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; n = 2383.
Source: Employees survey.

Data show that also in 2013 men (in 2013 – 14.5%, in 2010 – 7.7%) more frequently than women (in 2013 – 9.0%, in 2010 – 4.6%) have indicated on improvements in occupational health and safety, whereas men frequently than women have indicated on deterioration (men: in 2013 – 1.6%, in 2010 – 3.5% and women: in 2013 – 0.8%, in 2010 – 4.6%). In 2013 opinion of the younger respondents on improvements differs from opinion of the older respondents, i.e., younger persons admit more frequently that improvements in occupational health and safety can be observed, whereas older persons admit this less frequently (improvements were indicated by 15.6% (aged 18-25 years) – 9.6% of respondents aged 55 – 80 years). In 2013 differences among respondents of different ethnical background were observed – most often changes were indicated by respondents of other ethnical background (17.4%) and Latvians (11.6%). Tendency: number of positively thinking respondents grows along with pay raise in principal work remained also in 2013 (in 2010: from 3.9% with salary up to LVL 150 to 7.4% with salary LVL 251 and more, but in 2013: from 8.0% with salary up to LVL 150 to 14.3% with salary LVL 401 and more). Comparing results of the Study "Work conditions and risks in Latvia" with the results of survey "Working Life Barometer in the Baltic Countries" carried out in 1998 and 2002, one may conclude that improvements in occupational health and safety in Latvia in the first years after adoption of Labour Protection Law were approximately as rapid as in 1998 and 2002. However, situation in 2010 had changed dramatically. Number of respondents considering that occupational health and safety level has improved had decreased for approximately three times, and number of employees considering that occupational health and safety level has decreased in their companies had grown.

In general this shows that initially after adoption of the new legislation improved as rapidly as prior to adoption. Situation deteriorated during the economic crisis, because employers had neither financial, nor time resources for investments in the improvement of occupational environment, but recently, along with improvement of economic situation nationwide, development in the field of occupational health and safety has been renewed, but it has not reached the pre-crisis level (see Figure 9).

Figure 9. Changes in occupational health and safety level.



Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013: n = 2383. Data of 1998 and 2002 taken from the survey "Working Life Barometer in the Baltic Countries".
Source: Employees survey.

3.2 Enforcement of legislation

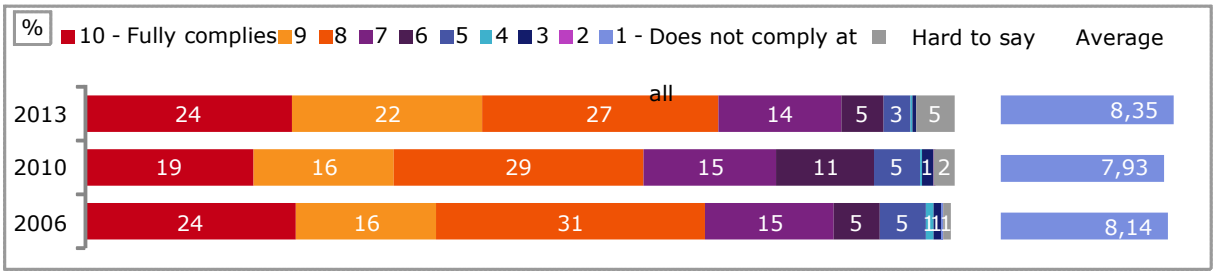
3.2.1 Compliance with occupational health and safety regulations

To assess the degree of compliance with occupational health and safety regulations in Latvia, the Study included analysis of various issues. Initially employers and employees gave their own assessment on compliance of working environment with different occupational health and safety requirements. Results of the study of 2013 also indicate that majority of respondent groups regard that occupational environment of the company complies with occupational health and safety requirements (average ratings in 2013 are above 8 (out of 10), that is on growing trend annually in dynamics), however, further analysis of data reflects that neither employers, nor employees, nor self-employed are aware about requirements of the Labour Protection Law or other occupational health and safety requirements. Due to the abovementioned reasons changes of results in dynamics are affected not only by the actual improvement or deterioration of situation, but also understanding of persons regarding different issues (for example, upon improvement of understanding on obligations of employers within the field of occupational health and safety, employers would most likely assess compliance of their companies with lower indicator).

Opinion of the employers. During the Study "Work Conditions and Risks in Latvia", employers were asked to self-assess the degree of compliance of their company with the requirements of the Labour

Protection Law – using a 10 point scale, where 10 is "full compliance" and 1 – "no compliance at all". Additionally average indicator of all particular answers was calculated. This allowed comparison of the situation both across different sectors, and different regions, as well as analysis of situation in dynamics on the basis of repeated studies. The distribution of answers and average national is reflected in Figure 10.

Figure 10. Employers' self-assessment of the compliance of working environment with the requirements of the Labour Protection Law.



Note: basis – all respondents, in 2006: n = 1058; in 2010: n = 1044; in 2013: n = 1044; for the average score – respondents having provided specific answer.

Source: Employers survey.

Analyzing data of 2013, 86.8% of employers (in 2006 86.2% of all respondents gave 7 to 10 points, in 2010 – 79.4%) assess the compliance of the companies with requirements of the Labour Protection Law as very good. However, a more in-depth assessment indicates that real situation concerning working environment in companies is much worse, because nearly a half – 45.6% of employers (in 2010 – 41.5%, in 2006 – 32.3%) have responded that working environment of the company complies with the Labour Protection Law (9 and 10 points out of 10), however, they still have not carried out full occupational risk assessment. This indicates both on low awareness regarding requirements of the Labour Protection Law and on changes of the employers themselves – the range has been added, for example, by the heads of micro-enterprises, who frequently have no education or experience regarding occupational health and safety (the requirement to carry out occupational risk assessment is included in Section 8 of the Law, and general occupational health and safety management system in each enterprise has to be based on occupational risk assessment). As a similar example could be mentioned also a fact that 40.0% of employers (in 2010 – 33.6%, in 2006 – 44.0%) who responded that working environment in their companies comply with the requirements of the Labour Protection Law, have also indicated that compulsory health examinations have not been carried out - these are required in Section 15 of the Law. Majority of the questions of employers' survey were analysed taking into account employers' self-assessment of the compliance of their companies/institutions with the requirements of the Labour Protection Law; such approach allows to differentiate, whether working environment indeed complies with requirements of legislation, or, rather, employers are not fully aware about the requirements (that is – employers are not informed or do not understand the requirements of the Law). Therefore results of the study in fact confirm hypothesis that the high self-assessment was caused by lack of knowledge instead of reflecting the objective real life situation (for example, in 2010 number of companies, where full occupational risk assessment had been carried out had grown by nearly 10% – from 22.1% in 2006 to 31.4% in 2010, but it slightly reduced – to 28.5% in 2013, but self-assessment concerning compliance of requirements of the Labour Protection Law during the period between 2006 and 2010 had decreased by 0.21 points, whereas between 2010 and

2013 self-assessment had grown by 0.42 points). Back in 2010 the research group projected that self-assessment would keep decreasing also in the future, because due to different informative educational activities knowledge level of the employers and understanding of necessary activities to provide compliance of the company with legislation requirements will grow. However, it must be noted that occupational risk self-assessment by the employers in regard of compliance of the working environment of the company with the requirements of Labour Protection Law has grown and not decreased, while full occupational risk assessment in the enterprises has slightly reduced. Detailed analysis of the employers survey shows that part of the employers does not consider that compliance with the occupational health and safety requirements is important, they see no sense within the legislation requirements and such.

To compare situation across separate sectors, different sizes of companies and by other parameters, as well as in dynamics, average score for the compliance assessment in all surveys was calculated also in 2013, and average national score obtained through the employers survey of Latvia was 8.4% (in 2010 – 7.9, in 2006 – 8.1), which is the highest assessment in comparison with the previous surveys. Analysing number of average score across different sectors, significant difference in various sectors was observed – highest self-assessment in 2013 was provided by the employers of fisheries – 8.6% (in 2010 health and social care sector was leading – 8.7, as well as in 2006 – 8.8), but the lowest one, as within previous surveys – in manufacture of basic metals, fabricated metal products, machinery and equipment (in 2013 – 7.7%, in 2010 – 7.1%, in 2006 – 7.3%). Number of accidents and occupational diseases has also grown within this sector, and this indicates on systematic failure to comply with the occupational health and safety requirements in the sector of manufacture of basic metals, fabricated metal products, machinery and equipment (see Table 2). Such results of the study can be supposedly related to better understanding of employers of the health and social care sector on occupational health and safety issues and more objective assessment of compliance of their companies. In their turn in 2013 employers from the fisheries sector show the highest self-assessment in relation to the compliance of occupational environment of the company with the requirements of Labour Protection Law, at the same time understanding regarding occupational health and safety issues is very poor among the employers from the fisheries sector (for example, if 0% (in 2010 – 1.9%) of the employers from health and social care sector have indicated that no employees of their companies are exposed to any occupational risk factors (the best indicator in Latvia), then 57.9% of employees in fisheries sector have been exposed to occupational risk factors, as well as 40.8% of employees in manufacture of textile and clothing products (worst indicators in Latvia)).

Table 2. Employers' self-assessment of compliance of their companies with the requirements of the Labour Protection Law, per sector.

Sector	Average score in 2006	Average score in 2010	Average score in 2013
Fisheries	8.4	7.7	8.6
Mining and quarrying	7.4	8.0	8.5
Manufacture of paper and paper products, polygraphy		7.8	8.5
Other sectors (not divided in detail within the study considering them a low-risk sectors)	8.3	8.1	8.4
Electricity, gas and water supply (2006) / Electricity, gas and steam supply (2010, 2013)*	7.9	7.8	8.4
Production of food and beverages	7.9	7.4	8.4
Agriculture, forestry, hunting (2006) / Agriculture, forestry (2010, 2013)*	7.8	7.4	8.4
Water supply, sewerage and waste management*	-	7.8	8.3
Health and social care	8.8	8.7	8.2
Manufacture of textile and clothing products		7.7	8.2
Construction	7.8	7.7	8.2
Manufacturing	8.0	7.5	8.0
manufacture of wood, products of wood and cork and of furniture	7.4	7.2	7.8
Manufacture of basic metals, fabricated metal products, machinery and equipment (2006) / Manufacture of basic metals, fabricated metal products (2010, 2013)	7.3	7.1	7.7

* Analysis of data in dynamics is not possible due to change of *NACE* classifier in 2008.

Note: basis – all respondents, in 2006: n = 1058; in 2010: n = 1044; in 2013: n = 1044; for the average score – respondents having provided specific answer.

Source: Employers survey.

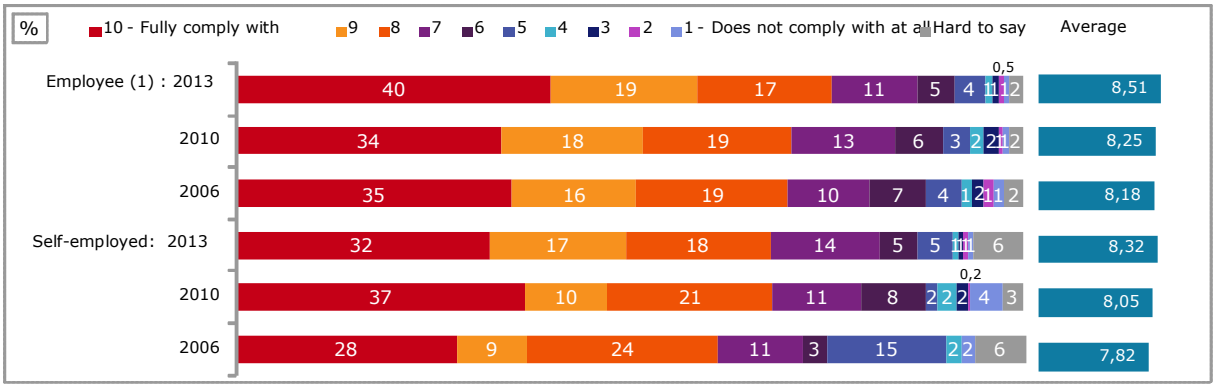
Similarly as in 2010, also in 2013 slightly higher self-assessment regarding compliance of company occurs among operational managers/managers of the companies (in 2013 – 8.3, in 2010 – 8.6) than the top managers/directors of the companies (in 2013 – 8.4, in 2010 – 7.9), which is opposite to data of the study carried out in 2006 (top managers/directors of the companies 8.2, operational managers/managers of the companies 8.0). Researches have no objective explanation for such tendency. Whereas similar tendencies depending on language of the survey were observed in all three studies - respondents using Russian during the survey (in 2006 – 8.3, in 2010 – 8.2, in 2013 – 8.4) gave slightly higher scores than Latvian speakers (in 2006 – 8.1, in 2010 – 7.9, in 2013 – 8.3), and their assessment in dynamics keeps growing. In 2013 employers have equally assessed compliance of their companies with occupational health and safety requirements with the highest scores. Equal self-assessment of compliance of their companies was among respondents from companies with 1-10 employees and with 250 and more employees (in both cases – 8.4), high self-assessment was among respondents from companies with 50–249 employees (8.5), but the most critical self-assessment was among respondents from companies with 11 – 49 employees (in both cases – 8.2). However, it must be

noted that in relation to the compliance with occupational health and safety legislation following trend was mostly observed within the survey – along with the growing size of the enterprise implementation of the particular occupational health and safety issue has also improved (for example, more frequently full assessment of occupational risk factors and provision of individual protective means has been carried out in large companies etc.). Possibly, large companies have to invest more resources for fulfilment of these occupational health and safety requirements (purchase of protective clothing and individual protective means, organization of compulsory health examinations etc.), and they are sufficient for fulfilment of all occupational health and safety requirements, wherewith the assessment is lower. Whereas, in 2010 equally critical assessment of compliance of their companies was among respondents from companies with 1 – 10 employees and 11 – 49 employees (in both cases – 7.9). Higher self-assessment regarding compliance was in companies with 50–249 employees and with 250 and more employees (in both cases – 8.3). In 2006 the most critical self-assessment was among respondents from companies with 50–249 employees (7.8), but the highest one – among respondents from companies with 250 and more employees (8.3), whereas in companies with 1 – 9 employees this indicator was 8.2, but in companies with 10 – 49 employees – 8.1. Respondents' assessments differ in regard of companies established in different times: before 1990 – average score is 8.1 (in 2010 – 7.9, in 2006 – 7.9), in 1991–1995 – 8.0 (in 2010 – 7.8, in 2006 – 8.2), in 1996–2000 – 8.3 (in 2010 – 8.0, in 2006 – 8.1), in 2001–2005 – 8.7 (in 2010 – 7.7, in 2006 – 8.2), in 2006–2010 – 8.5 (in 2010 – 8.4), in 2011–2013 – 8.1. Average score in the public sector is 8.0 (in 2010 – 8.1, in 2006 – 7.5), in private sector – 8.4 (in 2010 – 7.9, in 2006 – 8.2), but in non-governmental organizations – 8.8 (in 2010 – 7.9, in 2006 – 8.2).

Opinion of employees and self-employed workers. Questions to employees and self-employed workers were formulated slightly differently, but equally to both respondent groups in all surveys – single 10 point assessment scale was used in all cases, where 10 is "full compliance" and 1 – "no compliance at all":

- To what extent occupational health and safety requirements are being followed in the company (institution) where the respondent works, for example, use of personal protective equipment (earplugs, protective gloves), occupational health and safety instructions, compulsory health examinations, various instructions and such;
- To what extent the self-employed workers follow requirements of occupational health and safety, for example, use of personal protective equipment (earplugs, protective gloves) (see Figure 11).

Figure 11. Compliance with occupational health and safety requirements in companies and among self-employed workers.



Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013: n = 2383; all self-employed, in 2006: n = 65; in 2010: n = 127; in 2013: n = 175.
Source: Employees survey and employers.

The average score among employees is 8.5, (in 2010 – 8.25, in 2006 – 8.18), but among the self-employed – 8.32 (in 2010 – 8.05, in 2006 – 7.82). This indicates that self-employed workers are still slightly less compliant with occupational health and safety requirements than employees working for companies or institutions, but in general situation in dynamics improves in both groups.

Analysing average scores for employees from different sectors one must conclude that they vary significantly – the highest scores are given by respondents in electricity, gas and water supply sector (9.3) in 2013 (in 2010 the score given by employees of health and social care sector was 9.3; in 2006 the score given by employees of electricity, gas and water supply sector – 8.9), but the lowest – by employees of the sector of manufacture of paper and paper products and polygraphy and the sector of manufacture of wood, products of wood and cork and manufacture of furniture (8.0) (in 2010 by employees of construction sector – 7.3; in 2006 – by employees of the sector of manufacture of wood, products of wood and cork and manufacture of furniture 7.6) (see Table 3). It is important to indicate that average scores in dynamics have grown in all sectors.

Table 3. Compliance with occupational health and safety requirements in companies – assessment by employees, per sector.

Sector	Average score in 2006	Average score in 2010	Average score in 2013
Electricity, gas and water supply (2006) / Electricity, gas and steam supply (2010, 2013)*	8.9	8.7	9.0
Health and social care	8.7	9.3	8.8
Other sectors (not divided in detail within the study considering them a low-risk sectors)	8.2	8.4	8.6
Manufacturing	8.1	8.4	8.6
Production of food and beverages	7.9	8.4	8.6
Manufacture of textile and clothing products		7.7	8.6
Agriculture, forestry, hunting (2006) / Agriculture, forestry (2010, 2013)*	7.7	8.1	8.3
Construction	7.6	7.3	8.3
Mining and quarrying	8.7	8.9	8.2
Manufacture of basic metals, metal products, machinery and equipment (2006) / Manufacture of basic metals, fabricated metal products (2010, 2013)	7.9	7.5	8.2
Water supply, sewerage and waste management *		8.8	8.2
Fishing (2006) / Fisheries (2010, 2013)	8.2	8.6	8.2
Manufacture of paper and paper products, polygraphy		8.0	8.0

Sector	Average score in 2006	Average score in 2010	Average score in 2013
Manufacture of wood, products of wood and cork and of furniture	7.6	7.8	8.0

* Analysis of data in dynamics is not possible due to change of *NACE* classifier.

Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

Higher assessment of compliance with occupational health and safety requirements within all surveys also occurs among women (in 2006 – 8.4%, in 2010 – 8.3%, in 2013 – 8.6) than men (in 2006 – 7.9%, in 2010 – 8.1%, in 2013 – 8.4). Possibly this is due to the fact that according to the employees survey men more frequently than women have indicated the occupational risk factors related with safety and accident risk. Following tendency remains in 2013 – along with the growth of the age of respondents grows the average number of score given by the respondents regarding compliance of working environment (in 2006 – aged 18–24 years – 7.8, aged 25–34 years – 8.1, aged 35–44 years – 8.2, aged 44–54 years – 8.2, aged 55–74 years – 8.5; in 2010 – aged 18–24 years – 8.0, aged 25–34 years – 8.2, aged 35–44 years – 8.3, aged 45–54 years – 8.1, aged 55–74 years – 8.8; in 2013 – aged 18–24 years – 8.3, aged 25–34 years – 8.5, aged 35–44 years – 8.4, aged 45–54 years – 8.5, aged 55–74 years – 8.7). In 2006 no significant differences were observed among respondents with different ethnical background (Latvians – 8.2, Russians – 8.2, other – 8.3), whereas in 2010 Latvians assessed the working environment of their companies in more critical manner than respondents with different background, and this tendency is similar with 2013 (Latvians: in 2013 – 8.5, in 2010 – 8.1, Russians: in 2013 – 8.4, in 2010 – 8.5, other: in 2013 – 8.6, in 2010 – 8.6). In 2013 average score in the public sector is 8.8 (in 2010 – 8.6), in private sector – 8.3 (in 2010 – 8.0), in non-governmental organizations – 8.5 (in 2010 – 7.3). In general also in 2013 generally remains the following tendency: along with growth of size of the company grows the average score (1–10 employees: in 2013 – 8.3, in 2010 – 7.9, 11–49 employees: in 2013 – 8.4, in 2010 – 8.2, 50–249 employees: in 2013 – 8.7, in 2010 – 8.2, 250 employees and more: in 2013 – 8.6, in 2010 – 8.3). Significant difference in assessment of the compliance of working environment can be observed depending on whether the employees of particular company receive salary in envelope, or not (if salary is never paid in envelope, the average score is: in 2013 – 8.6, in 2010 – 8.4, if salary is sometimes paid in envelope: in 2013 – 7.5, in 2010 – 7.5, if salary every month is paid in envelope: in 2013 – 6.8, in 2010 – 6.8), which could still be explained with the fact that occupational health and safety requirements are not followed more frequently in companies practicing envelope wages on a regular basis (see chapter “Impact of illegal economy on situation regarding occupational health and safety in enterprises” for more detailed information).

3.2.2 Organising occupational health and safety management system

According to the requirements of section 9 of Labour Protection Law, in order to perform labour protection measures and internal supervision of the working environment an employer shall, taking into account the number of employees in an undertaking and the type of activities, designate or hire one or several labour protection specialists or establish an organisational unit of labour protection. The procedure for the training of labour protection specialists, labour protection co-ordinators, employers, employees and trusted representatives shall be determined by the Cabinet. Employer shall grant the

labour protection specialist the necessary means and time (within working hours) in order he or she may fulfil his or her obligations.

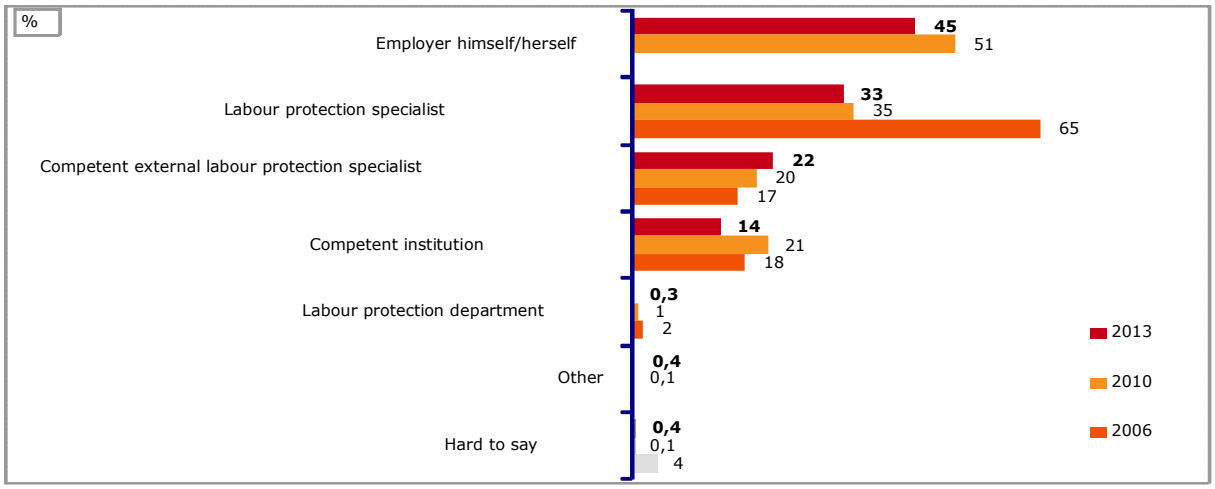
If it is not possible to organise the labour protection system by designating or hiring labour protection specialists, the employer shall engage a competent authority or a competent specialist in the establishment and maintenance of the system, and a person responsible for labour protection shall be designated in the undertaking.

Activities of competent authorities and competent specialists shall be regulated by the Regulations of the Cabinet of Ministers No. 723 "Regulations regarding the Requirements for Competent Authorities and Competent Specialists in Labour Protection Issues and the Procedures for Competence Evaluation" (adopted on 08.09.2008, in force as of 01.01.2009). Whereas types of commercial activity requiring engagement of competent authorities have been specified in the Regulations of the Cabinet of Ministers No. 99 "Regulations regarding the Types of Commercial Activities in which an Employer shall Involve a Competent Authority" (adopted on 08.02.2005, in force as of 01.01.2006). At the time or carrying out of this Study there were 50 competent authorities and 661 competent specialists in Latvia (data as per 01.11.2013).

Opinion of employers. During the survey, employers were asked, who in their company / institution carries out tasks of occupational health and safety specialist. A total of 9.2% of employers recognized that they do not have such specialists in their companies / institutions (in 2010 – 7.8%, in 2006 – 8.1%), and this was the highest (worst) indicator in comparison with the previous surveys. In 2013 most frequently no person acting as labour protection specialist was in the mining and quarrying (13.5%), fisheries (13.2%), and other sectors not divided in more detailed manner (10.5%), and this is more frequently than on average in Latvia (9.2%). It must be noted that this indicator is high also in construction sector – 8.2%, although it does not exceed the average indicator in Latvia. Whereas, according to the survey of 2013 the best situation is in sectors of manufacture of wood, products of wood and cork and of furniture and health and social care, because there was not mentioned that there were no such specialists or there are persons working as labour protection specialists in 100% of the enterprises of this sector.

Employers, in whose companies occupational risk assessment has been performed were asked who performed occupational risk assessment in their companies (see Figure 12).

Figure 12. Performer of occupational risk assessment.



Note: basis – respondents, in whose enterprises occupational risk assessment has been performed, in 2006: n = 576, in 2010: n = 621; in 2013: n = 659.
Source: Employers survey.

A total of 44.9% (in 2010 – 55.8%, in 2006 – 63.4%) employers indicated that occupational health and safety tasks in their enterprise are carried out by himself / herself, and in comparison with former surveys this indicator is significantly lower, which is positive tendency. At the same time 52.6% (in 2010 – 42.5%, in 2006 – 61.6%) of these employers have neither undergone occupational health and safety training (160 hours) (during the surveys new requirements regarding training duration in labour protection were not in force yet), nor have higher professional education in this area, and this indicator is higher than in 2010, but lower than in 2006. Situation should be assessed as dissatisfactory, since many employers in fact perform duties of labour protection specialists without relevant education.
Also, the survey of 2013 indicates that following tendency remains – most frequently the tasks of labour protection specialist are carried out by the employer himself/herself in small companies (in 2006: 1–9 employees – 76.1%, 10–49 employees – 31.6%, 50–249 employees – 13.0%, 250 employees and more – 5.5%; in 2010: 1–10 employees – 61.8%, 11–49 employees – 26.1%, 50–249 employees – 6.1%, 250 employees and more – 0.2%; in 2013: 1–10 employees – 55.9%, 11–49 employees – 14.9%, 50–249 employees – 12.0%, 250 employees and more – 3.8%).

According to the survey, in 33.4% of companies labour protection measures were performed by labour protection specialists (in 2010 – 24.1%, in 2006 – 22.6%) in 2013; in 0.3% of all cases (in 2010 – 1.3%, in 2006 – 1.9%) – by several labour protection specialists or labour protection department. In 70.7% (in 2010 – 79.6%, in 2006 – 79.0%) of companies labour protection specialists work combining their positions, but in 18.4% (in 2010 – 15.7%, in 2006 – 25.8%) of companies labour protection specialists are full-time employees. It must be noted that number of the companies with labour protection specialists working by combining their positions has decreased, but number of the companies with full-time working labour protection specialist has increased again. In general this indicates on positive processes that would supposedly improve performance and maintenance of labour protection measures in companies.

61.3% (in 2010 – 78.7%, in 2006 – 79.5%) of employers have indicated that the designated labour protection specialists have acquired 160 hour labour protection training, but 31.2% (in 2010 – 15.1%, in 2006 – 12.3%) of specialists are with the higher professional education in labour protection, and this indicates on both that number of such specialists has grown significantly, and that demand for such specialists has also grown. Contrary to the situation with employers, only 3.0% (in 2010 – 0.7%, in 2006 – 1.6%) of the designated labour protection specialists have neither undergone 160 hour labour protection training, nor have a relevant higher education. In comparison with the previous years situation has changed, namely, number of the labour protection specialists having undergone 160 hour labour protection training has decreased, but number of the labour protection specialists with the higher professional education in labour protection has increased; at the same time number of the labour protection specialists who have neither undergone 160 hour labour protection training, nor have a relevant higher education has slightly increased. Although not as rapidly as in 2010, but also in 2010 the number of companies having engaged competent specialists in the area of labour protection for performance of labour protection measures has grown (in 2013 – 9.0%, in 2010 – 8.5%, in 2006 – 3.8%,), and having concluded a contract with competent authorities of labour protection (in 2013 – 8.0%, in 2010 – 7.4%, in 2006 – 2.0%). Results of the study of 2013 show that employers have received different services from the competent authorities and specialists, but most frequently,

similarly as in 2010, these services have been related to development of labour protection instructions, assistance in training and instructing employees and occupational risk assessment. Whereas, according to the survey of 2006 most frequently these services were – occupational risk assessment and preventive measures, as well as development of labour protection instructions (see Table 5). It must be noted that in comparison with former surveys part of the services used by companies increased: in preparation of workplace safety instructions, performance of occupational risk assessment, organizations of health examinations of employees, performance of laboratory measurements and preparations of opinion about non-compliance with occupational health and safety legislation. Fact that labour protection instructions have been developed more frequently than occupational risk assessment has been performed should still be assessed as a negative feature of situation (confirming the trend that volume of formal provision of such service has grown, although slightly) (in 2013 – development of labour protection instructions has been performed in 86.5% of all cases, but risk assessment – in 79.1% (see Table 4).

Table 5. External labour protection services received from competent institutions or specialists.

Type of service	Number of employers who used the service (%)		
	2006	2010	2013
Preparation of workplace safety instructions	69.9	83.8	86.5
Occupational risk assessment	73.3	78.6	79.1
Assistance in training and instructing employees	51.3	81.0	78.8
Consultations about required preventive measures	79.0	73.5	66.9
Internal monitoring and control of working environment	65.8	63.4	62.8
General consultations on topics related to occupational healthcare and occupational health and safety	52.7	59.2	56.7
Health examination organization of employees	29.6	33.4	49.9
Consultations on selection and use of appropriate tools and equipment	38.8	35.7	40.7
Consultations on selection of protective clothing and personal protective equipment	29.6	40.6	39.8
Performance of laboratory measurements	34.5	18.5	35.7
Opinion about non-compliance with occupational health and safety legislation	22.3	29.1	34.3

Note: basis – respondents, whose companies have concluded contract with competent authority/specialist in the field of labour protection, in 2006: n = 75, in 2010: n = 217; in 2013: n = 244.
Source: Employers survey.

Survey of 2013 shows the same tendency as in 2010 – the larger the company is, the more frequently assistance of the competent authorities in occupational risk assessment is used, whereas survey of 2006 showed that companies with 10-249 employees used external services provided by competent authorities/specialists in occupational risk assessment most frequently (in 2013: 1 - 10 employees – 72.4%, 11-49 employees – 97.1%, 50 - 249 employees – 98.8%, 250 and more employees – 100.0%; in 2010: 1 – 10 employees – 75.6%, 11-49 employees – 84.7%, 50 - 249 employees – 96.8%, 250 and more employees – 100.0%; in 2006: 1 – 9 employees – 67.5%, 10-49 employees – 81.4%, 50 - 249 employees – 79.0%, 250 and more employees – 60.9%). Also, in regard of laboratory measurements in

2013 the same tendency can be observed – the larger the company is, the more frequently assistance of the competent authorities/specialists is used (in 2013: 1 – 10 employees – 30.9%, 11-49 employees – 46.5%, 50 - 249 employees – 53.3%, 250 and more employees – 92.2%; in 2010: 1 – 10 employees – 10.8%, 11-49 employees – 36.0%, 50 - 249 employees – 60.2%, 250 and more employees – 61.8%; in 2006: 1 - 9 employees – 22.4%, 10-49 employees – 45.7%, 50 - 249 employees – 59.1%, 250 and more employees – 80.0%). This indicates that in large companies assessment of working environment is being performed at higher quality, because competent authorities are more frequently involved both in labour protection and laboratory measurements for good quality assessment of working environment.

Whereas the competent authorities/specialists of labour protection are being engaged for the internal monitoring and control of the working environment in larger companies more frequently, in addition 2013 indicates on tendency that along with the growth of size of the company grows also involvement of the competent authorities/specialists for the monitoring and control of the working environment in the companies. According to the survey of 2013 tendency that competent authorities/specialists are involved most frequently for this purpose (in 2013: 1 – 10 employees – 60.1%, 11-49 employees – 68.3%, 50 - 249 employees – 75.2%, 250 and more employees – 92.2%; in 2010: 1 – 10 employees – 60.3%, 11-49 employees – 70.8%, 50 - 249 employees – 81.1%, 250 and more employees – 68.6%; in 2006: 1 - 9 employees – 53.0%, 10-49 employees – 83.5%, 50 - 249 employees – 69.9%, 250 and more employees – 91.7%).

Surveys in 2013 and 2010 are different from the survey of 2006 in regard of the time when the company was founded, i.e., in 2006 the competent labour protection authorities/specialists were most frequently engaged for the occupational risk assessment by newly founded companies, in 2010 such specialists were most frequently engaged by companies that operated back before the recovery of independency, but in 2013 such specialists were most frequently engaged by companies founded as a result of reorganization of particular company (in 2013: in 80.3% of newly founded companies after the recovery of independency, in 2010 – 89.2%, in 2006 – 77.1%, 54.3% - in companies operated before the recovery of independency (in 2010 – 80.7%, in 2006 – 42.3%), in 99.9% of companies founded as a result of reorganization of particular company (in 2010 – 77.9%, in 2006 – 48.0%). In 2013 similar situation can be observed also in the field of laboratory measurements, but for the internal monitoring and control of occupational environment the competent specialists/institutions are most frequently engaged by the companies operated before the recovery of independency. This could be explained with the fact that in 2005–2006 the newly found companies possibly more frequently chose to use external services for provision of different services necessary for the company, while the "old" companies basically engaged their own labour protection specialists on the basis or previous requirements and practice. Whereas in 2009 the dominating situation in the market was different, because many companies dismissed labour protection specialists and used external services due to cost optimization, whereas in 2013 after the economic crisis many companies have performed different reorganization (insolvency, change of owners, incorporation, change of the operational direction etc.) and, while formally they could be considered new companies or companies operating under new owners or as companies of different business forms, they still operate in the same area.

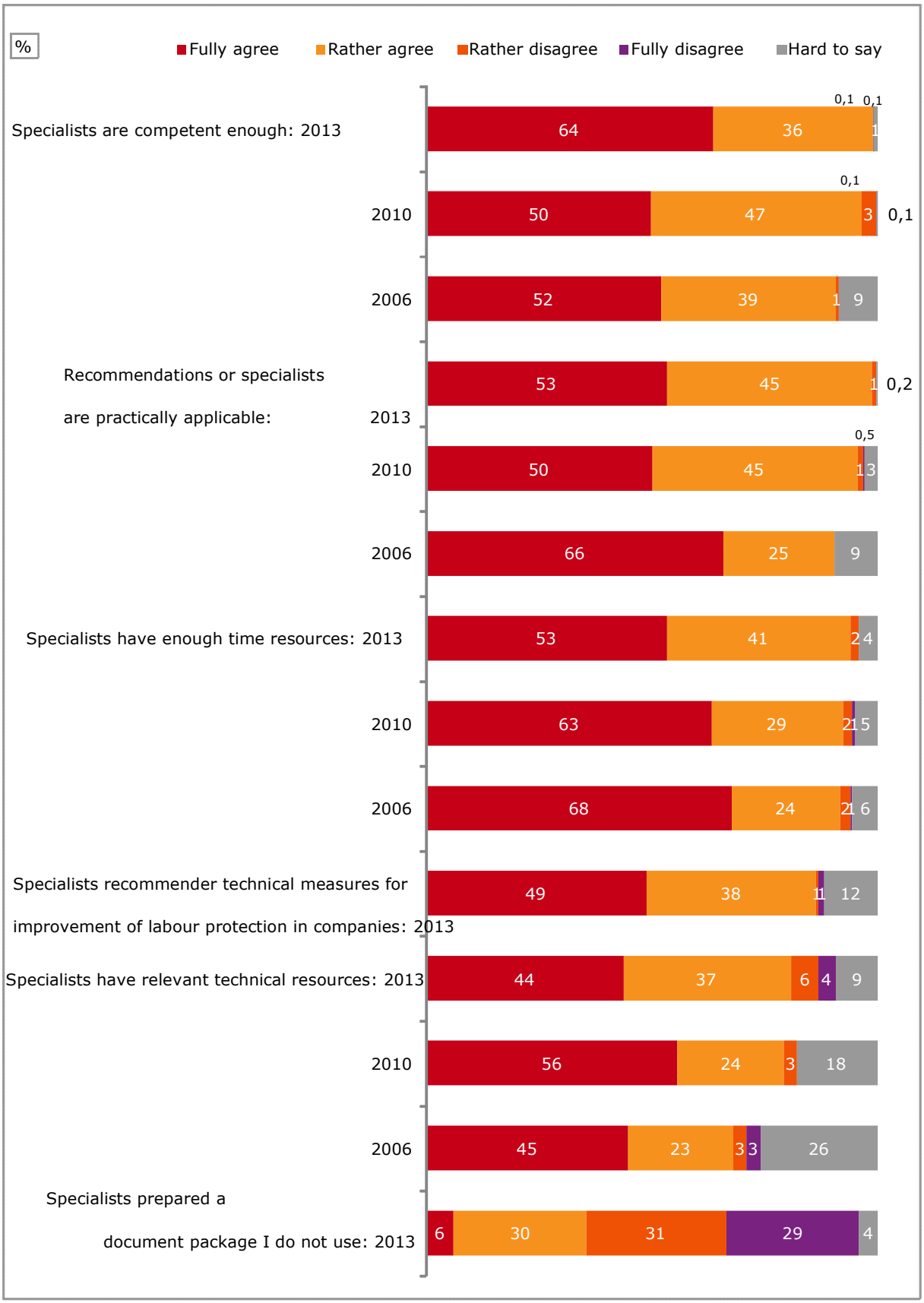
Similarly as in 2006, also in the survey of 2013 use of services provided by the competent institutions or specialists has been mentioned more frequently by the employers of private sector, except for the general consultations on topics related to occupational healthcare and occupational health and safety, internal monitoring and control of working environment and consultations about required preventive measures most frequently used by the public sector companies. At the same time in the survey of 2010

use of services provided by the competent institutions or specialists has been mentioned more frequently by the employers of public sector, except for the general consultations on topics related to occupational healthcare and consultations on selection of protective clothing and personal protective equipment more frequently used by the private sector companies; whereas consultations on selection and use of appropriate tools and equipment and preparation of workplace safety instructions are mentioned by the employers of public and private sector with equal frequency.

Opinion about non-compliance with occupational health and safety legislation has been indicated more frequently by the representatives of the public (33.1%) than the private sector (21.8%). Health examination organization of employees is also indicated more frequently by the representatives of the public sector (41.6%) comparing with the representatives of the private sector (28.8%). This could be related to the fact that as from 2006 public authorities started using external services in the field of labour protection much more frequently, however, situation dramatically changed in 2008 – 2012 due to significant reduction of financing in public authorities resulting in huge reduction of the number of procurements, tenders and negotiation procedures organized by the public and municipal companies for different labour protection services.

The Study also analysed opinions about quality of provided external services (see Figure 13).

Figure 13. Opinion on external occupational health and safety specialists.



Note: basis – respondents, whose companies have concluded contract with competent authority/specialist in the field of labour protection, in 2006: n = 75, in 2010: n = 217; in 2013: n = 244.

Source: Employers survey.

Due to relatively low number of respondents from companies, who had used external occupational health and safety services of competent authorities/specialists in the survey of 2006, it was not purposeful and informative to carry out any detailed analysis across sectors, regions, sizes of companies, and other parameters. Number of such respondents was nearly three times higher in the surveys of 2010 and 2013, and analysis of such data was possible.

Similarly as in 2010, also in 2013 differences in the answers of different sectors on whether the respondents agree that the labour protection specialists they cooperate with are competent enough can not be observed, and the number of respondents agreeing with this assertion, fluctuates in different sectors between 91.6% and 100.0% (in 2010 – from 95.2% to 100.0%). Positive trend can be observed in 2013 – the respondents agree that the labour protection specialists they cooperate with are competent enough; differences in the answers provided in different sectors can be observed depending on the number of employees in the particular company (in 2010: 1–10 employees – 96.8%, 11–49 employees – 96.9%, 50–249 employees – 90.6%, 250 and more employees – 92.5%; in 2013: 1–10 employees – 98.8%, 11–49 employees – 100.0%, 50–249 employees – 100.0%, 250 and more employees – 100.0%). Also, under the division across the foundation year, sector of activity and region of the company in 2013 no significant differences or trends can be observed.

94.1% of respondents agree with the assertion that the labour protection specialists they cooperate with have relevant technical resources (in 2010 – 92.3%). In 2013 the lowest rate of such agreement occurs among respondents from the electricity, gas and steam supply sector (81.5%) and the manufacture of basic metals and fabricated metal products (88.7%), but 100% agreement occurs among respondents from the mining and quarrying, manufacture of textile and clothing products, water supply, sewerage and waste management sector, manufacturing, construction, manufacture of paper and paper products, polygraphy, and health and social care sector. Whereas in 2010 the lowest rate of such agreement occurred among respondents from the manufacture of wood, products of wood and cork and of furniture (81.5%), manufacturing (83.0%) and sector of production of food and beverages (89.0%), but 100% agreement occurred among respondents from the agriculture and forestry, fishing, mining and quarrying, manufacture of textile and clothing products, manufacture of basic metals and fabricated metal products, electricity, gas and steam supply, water supply, sewerage and waste management and health and social care sector. In 2010 the lowest rate of such agreement occurred among respondents from the largest companies, but in 2013 – among the respondents from the small companies (in 2010: 1–10 employees – 93.5%, 11–49 employees – 87.9%, 50–249 employees – 94.7%, 250 and more employees – 84.2%; in 2013: 1–10 employees – 92.6%, 11–49 employees – 98.5%, 50–249 employees – 96.7%, 250 and more employees – 96.7%). Under the division across the foundation period of the company in 2013 the highest rate of agreement that the labour protection specialists they cooperate with have enough time resources most frequently occurred among the representatives from companies founded between 2006 and 2010.

81.0% of respondents agree with the assertion that labour protection specialists they cooperate with have relevant technical resources (in 2010 – 79.3%). In 2013 the lowest agreement with this assertion occurred among respondents from the agriculture and forestry sector (45.1%), manufacturing (73.4%) and production of food and beverage sector (74.8%), but 100% agreement occurred among representatives of the manufacture of basic metals and fabricated metal products, and mining and quarrying sector. Whereas in 2010 the lowest rate of agreement with such an assertion occurred by the respondents of production of food and beverages (62.4%) and manufacture of textile and clothing

products (73.9%), electricity, gas and steam supply (71.7%) and other sectors separately unclassified within the Study (74.3%), but 100% rate of agreement occurred among respondents of the fisheries and mining and quarrying sector. In contradistinction with the data of 2010 the lowest rate of agreement with this assertion occurred among respondents from small companies (in 2010: 1–10 employees – 79.1%, 11–49 employees – 79.2%, 50–249 employees – 83.6%, 250 and more employees – 75.6%; in 2013: 1–10 employees – 79.2%, 11–49 employees – 87.0%, 50–249 employees – 80.8%, 250 and more employees – 93.1%). Depending on the year of foundation of the company in 2013 the lowest rate of agreement with this assertion occurred among employers from companies founded before 1990, but in 2010 – among employers from companies founded between 1991 and 1995 (before 1990: in 2013 – 47.3, in 2010 – 78.5%, between 1991 and 1995: in 2013 – 88.5%, in 2010 – 76.0%, between 1996 and 2000: in 2013 – 80.3%, in 2010 – 82.4%, between 2001 and 2005: in 2013 – 89.6%, in 2010 – 80.9%, between 2006 and 2010: in 2013 – 78.9%, in 2010 – 77.8%, between 2011 and 2013: in 2013 – 100.0%). Rate of agreement with this assertion among the employers of the private sector – 84.7% (in 2010 – 78.5%) is higher than among the respondents from the public sector – 55.1% (in 2010 – 2.4%).

98.7% of respondents agree with the assertion that recommendations of the labour protection specialists they cooperate with are practically available (in 2010 – 95.5%). In 2013 the lowest rate of agreement with this assertion occurred among respondents from the respondents from agriculture, forestry (68.2%) and mining and quarrying sectors (88.2%), but 100% rate of agreement with this assertion occurred among respondents from fisheries sector, manufacturing, production of food and beverages, water supply, sewerage and waste management, construction and health and social care. Whereas in 2010 the lowest rate of agreement with this assertion occurred among respondents from production of food and beverages (88.2%) and manufacturing (83.0%), whereas 100% rate of agreement with this assertion occurred among respondents from fishing sector, mining and quarrying sectors, manufacture of wood, products of wood and cork and of furniture, manufacture of paper and paper products, polygraphy sector and manufacture of basic metals and fabricated metal products, and gas and steam supply sectors. In 2010 the lowest rate of agreement with this assertion occurred among respondents from the largest companies, but in 2013 – companies with 50 – 249 employees (in 2010: 1–10 employees – 95.9%, 11–49 employees – 94.9%, 50–249 employees – 92.6%, 250 and more employees – 90.8%; in 2013: 1–10 employees – 98.9%, 11–49 employees – 98.2%, 50–249 employees – 97.8%, 250 and more employees – 100.0%). Depending on the year of foundation of the company the lowest rate of agreement with this assertion occurred among employers from companies founded between 1991 and 1995 (before 1990: in 2013 – 96.3%, in 2010 – 96.7%, between 1991 and 1995: in 2013 – 98.2%, in 2010 – 90.3%, between 1996 and 2000: in 2013 – 99.3%, in 2010 – 98.2%, between 2001 and 2005: in 2013 – 99.6%, in 2010 – 95.7%, between 2006 and 2010: in 2013 – 99.35, in 2010 – 100.0%, between 2011 and 2013: in 2013 – 75.4%). The answers provided in 2013 also show no difference depending on the sector of the company. Data on fines applied by the VDI officials to legal entities and natural persons for provision of poor quality labour protection services and labour protection services incompliant with the legislation or failure to fulfil the requirements of controlling institutions are public records since 2012, and, possibly, this factor confers additional responsibility and promotes more honest attitude in provision of labour protection services, because otherwise suffers reputation of the persons and cooperation possibilities with customers reduces.

3.2.3 Internal supervision of the working environment

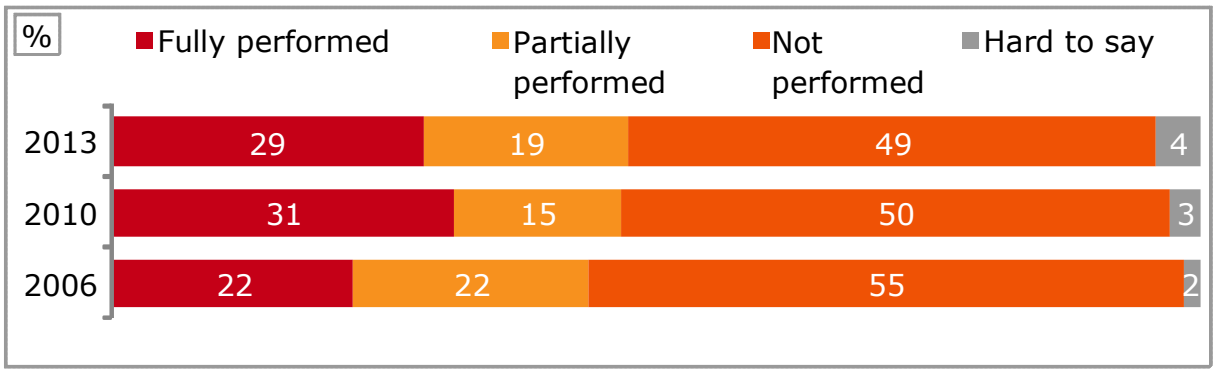
Pursuant to the requirements of chapter II, section 5 of the Labour Protection Law (adopted on 06.07.2001, in force as of 01.01.2002), an employer has an obligation to organise a labour protection system the most important part of which includes evaluation of the working environment risks. More detailed procedure of evaluation of the working environment risks in Latvia is defined by the Regulations of the Cabinet of Ministers No. 660 "Procedures for the Performance of Internal Supervision of the Work Environment" (adopted on 02.20.2007, in force as of 06.10.2007).

There are numerous occupational risk assessment methods being used worldwide, but a According to Latvian legislation, the employer may choose a method and standards in line with company's technical and financial capacities, as well as working conditions, as long as the chosen method complies with the requirements of the Cabinet Regulation No 379 "Procedures for the Performance of Internal Supervision of the Working Environment". Most of the methods used consist of the following stages:

- Stage 1 – identification of occupational risk factors by inspecting the workplaces or types of work;
- Stage 2 – working environment measurements to identify hazards and assessment of any other relevant data (analysis of safety sheets of the chemical substances, analysis of workplace accidents, etc.);
- Stage 3 – on basis of the information and literature sourced during the first two stages and in accordance with occupational risk assessment scale, occupational risks are then assessed and required preventive measures designed.

Opinion of employers. Though the legislation requirements for occupational risk assessment in Latvia are in force since January 1, 2002, even in 2013 approximately half of the employers have responded that occupational risk assessment in their companies and authorities has not been carried out at all or have been carried out partially (situation has significantly improved in comparison with 2006, when three quarters of employers indicated that occupational risk assessment has never been carried out at all). Comparing the number of respondents having admitted that occupational risk assessment in their companies has been carried out in full, one must conclude that number of such employers has slightly decreased in 2013 in comparison with 2010, however, it is higher than in 2006 (in 2013 – 28.5%, in 2010 – 31.4%, in 2006 – 22.1%) (see Figure 14).

Figure 14. Completion on occupational risk assessment in companies.



Note: basis – all respondents, in 2006: n = 1058; in 2010: n = 1044; in 2013: n = 1044.
Source: Employers survey.

Although the number of companies, where occupational risk assessment has not been carried out at all has decreased in 2013 (from 54.8% in 2006 to 48.5% in 2013), supposedly, this difference is caused by differences in respondent groups. In 2013 full occupational risk assessment was carried out much less frequently in micro-enterprises and large companies, but along with growth of the size of the company reduces the number of cases, when occupational risk assessment of the company has not been carried out at all (see Table 6). Furthermore, dynamics over the years shows that number of cases, when occupational risk assessment is not carried out in large companies has decreased from 5.0% in 2006 and from 9.1% in 2010 to 0% in 2013 (see Table 5, 6 and 7).

Table 5. Completed occupational risk assessment depending on size of the company – 2013.

	All companies		Number of employees							
			1–10 (micro)		11–49 (small)		50–249 (medium)		≥250 (large)	
	N	%	N	%	N	%	N	%	N	%
Has been carried out fully	452	28.5	212	22.3	110	63.4	88	67.6	42	36.2
Has been carried out partly	207	18.8	134	18.7	38	19.9	27	19.0	8	20.6
Has not been carried out	345	48.6	312	54.8	24	13.5	9	8.6	0	0.0
Hard to say	40	4.1	28	4.2	4	3.2	5	4.8	3	3.2

Note: basis – all respondents, in 2013: n = 1044.
Source: Employers survey.

Table 6. Completed occupational risk assessment depending on size of the company – 2010.

	All companies		Number of employees							
			1–10 (micro)		11–49 (small)		50–249 (medium)		≥250 (large)	
	N	%	N	%	N	%	N	%	N	%
Has been carried out fully	419	31.4	125	27.0	143	54.8	96	65.2	55	55.2
Has been carried out partly	202	15.3	77	14.5	60	18.6	39	24.4	26	26.3
Has not been carried out	386	50.5	295	55.7	65	23.5	18	9.4	8	9.1
Hard to say	37	2.8	14	2.8	12	3.2	3	1.0	8	9.3

Note: basis – all respondents, in 2010: n = 1044.
Source: Employers survey.

Table 7. Completed occupational risk assessment depending on size of the company – 2006.

	All companies		Number of employees							
			1–9 (micro)		10–49 (small)		50–249 (medium)		≥250 (large)	
	N	%	N	%	N	%	N	%	N	%
Has been carried out fully	323	22.1	106	15.2	109	39.3	75	49.0	33	54.7
Has been carried out partly	253	21.5	90	17.5	95	32.0	46	36.3	22	36.8

Has not been carried out	461	54.8	354	65.7	85	26.8	18	13.3	4	5.0
Hard to say	21	1.6	12	1.5	5	1.8	3	1.4	1	3.5

Note: basis – all respondents, in 2006: n = 1058.
Source: Employers survey.

Tables 5, 6 and 7 show that situation has significantly improved in all groups of respondents also in 2013, however, following tendency can still be observed – the smaller the company is, the less frequently full occupational risk assessment has been carried out.

Survey of 2013 show that most frequently full occupational risk assessment has been carried out in companies with the key performance area – health and social care sector (71.7%), water supply, waste management (50.1%) and production of food and beverages (44.4%), but least frequently occupational risk assessment has been carried out in companies with the key performance area mining and quarrying (22.0%), fisheries (26.4%) and agriculture, forestry (32.6%). Whereas, according to the survey of 2010 most frequently full occupational risk assessment has been carried out in companies with the key performance area construction (46.0%). Comparatively frequently occupational risks have been assessed in manufacture of wood, products of wood and cork and of furniture (38.7%), agriculture and forestry (37.6%), as well as mining and quarrying (34.6%). In 2010 full occupational risk assessment has been carried out least frequently in companies with the key performance area – manufacture of paper and paper products, polygraphy (70.3%) and manufacture of textile and clothing products (69.2%). Taking into consideration the fact that large number of different occupational risk factors is typical for mining and quarrying, fisheries, and forestry (for example, work with different kind of machinery, noise, chemical substances and mixtures, work in awkward postures etc.), as well as the comparatively high number of employees, these sectors should be still considered priorities in relation to thematic inspections of the VDI, as well as development of different informative materials (for example, preparing practice standards for these sectors).

It should be noted that while the number of companies where occupational risk assessment has not been carried out at all was comparatively low in construction sector in 2010 (in 2010 – 26.0% as compared with 50.5% – average total number for all sectors; in 2013 – 43.5% as compared with 48.6% – average total number for all sectors), in 2013 number of such companies has grown causing negative trend, because the construction sector includes many risk factors impact of which may result in health disorders, as well as serious and lethal accidents. Therefore construction is one of the sectors that should not involve any companies without occupational risk assessment. Whereas number of companies in health and social care sector where occupational risk assessment had not been carried out at all was comparatively low also in 2013 – 19.5% (in 2010 - 14.1%). Although the abovementioned indicators are dissatisfactory, since the occupational risk assessment has to be carried out in full already for several years, in separate sectors comparatively better results can be possibly related to different informative activities, campaigns and priorities (for example, thematic inspections or seminaries and other) and activities of the most active social partners. However, situation in sector like, for example, construction shows that only activities of this kind are definitely insufficient, because the situation may not be considered as sufficiently good. Obviously in separate sectors more particular attention is necessary both for awareness and supervision.

Also in 2013 significant difference in terms of occupational risk assessment can be found in private and public sector. Occupational risk assessment has not been carried out in 17.0% of public sector companies (in 2010 – 10.2%, in 2006 – 28.5%) and 50.7% of private sector companies (in 2010 – 49.6%, in 2006 – 56.0%), and this shows that situation is deteriorating a little as compared with 2010,

however, opposite situation can be observed in non-governmental organizations, where occupational risk assessment has not been carried out at all in 37.8% of cases (in 2010 – 81.3%, in 2006 – 52.7%). Slightly better situation can be observed in companies with dominating foreign property rights also in 2013 (risk assessment has not been carried out in 45.9% of companies, in 2013 – in 32.6%) in comparison with companies with dominating local property rights (in 2013 – 49.2%, in 2010 – 50.8%). Occupational risk assessment has not been carried out more frequently in companies located in Riga (in 2013 – 52.9%, in 2010 – 57.3%, in 2006 – 53.0%), but, as compared with previous years, situation has improved. In 2010 occupational risk assessment had not been carried out more frequently in companies founded after 2006 – 64.1%, and fact that the number of companies founded before 1990 and where occupational risk assessment has not been carried out had grown must be marked as a significant effect (41.2% in 2010 versus 33.1% of companies – in 2006). Whereas in 2013 the occupational risk assessment has not been carried out most frequently in new companies founded between 2011 and 2013 (65.6%), but least frequently – in companies founded before 1990. Therefore one may conclude that risk group in relation to companies, in which occupational risk is not assessed at all consists of new companies, and this is proved by the data of studies conducted in 2010 and 2013.

Analysis of the number of companies, where occupational risk assessment has been/has not been carried out across the VID regions, show that the highest number of companies, where occupational risk assessment has not been carried out are located in Zemgale region (in 2013 – 53.1%) and Riga region (in 2013 – 52.9%, in 2010 – 56.7%) (however, it must be taken into consideration that the data are not fully comparable, because regional reorganization of the VDI was performed in 2012). The Study of 2013 also included data analysis depending on, whether the company is a participant of any employers' organization or not. Among the members of LDDK occupational risk assessment has not been carried out in 29.6% of cases (in 2010 – 24.8%), but in companies that are not members of any organization – in 50.9% of cases (in 2010 – 53.4%), and this shows that companies – members of LDDK carry out occupational risk assessment more frequently than companies that are not members of any organization. However, it must be noted that the number of unperformed occupational risk assessments in dynamics has slightly increased among the members of LDDK, but frequency of unperformed occupational risk assessments among the companies that are not members of any organization, and this shows that education of the members regarding working environment issues must be continued also in organizations like LDDK. Analysis was carried out depending on how the company (authority) has assessed their operational stability (predictability) for the future, taking into consideration the current economic situation (in 10 point scale, where 10 means "operation of the company is fully stable (predictable) in the future", but 1 – "operation of the company is fully unstable (unpredictable) in the future"). Survey of 2013 shows – the more stable and more predictable is the future of the company, the more frequently occupational risk assessment has been carried out in full (stability – 1–2 – risk assessment has been carried out in 12.8% of all cases (in 2010 – 24.3%), stability – 9–10 – risk assessment carried out in 44.3% of all cases (in 2010 – 40.3%)).

Taking into consideration the employers' assessment regarding compliance of working environment of their companies with the requirements of Labour Protection Law, 45.6% (in 2010 – 47.1%, in 2006 – 49.7%) of the representatives of the company having responded that working environment of the company complied with the Labour Protection Law (9 and 10 points in 10 point scale), have admitted that no occupational risk assessment has been carried out in the company. Regardless of the fact that large part of employers has not been informed on requirements of the Labour Protection Law (occupational risk assessment is a requirement defined in section 8 of the Labour Protection Law and common labour protection system in the company should be based on occupational risk assessment).

However, it must be noted that within the respondent groups, among which more critical compliance assessment occurred, risk assessment has improved significantly (for example, no risk assessment has been carried out in 7.9% of cases in the group having admitted that compliance is 5 and 6 (in 2010 – 61.9%)).

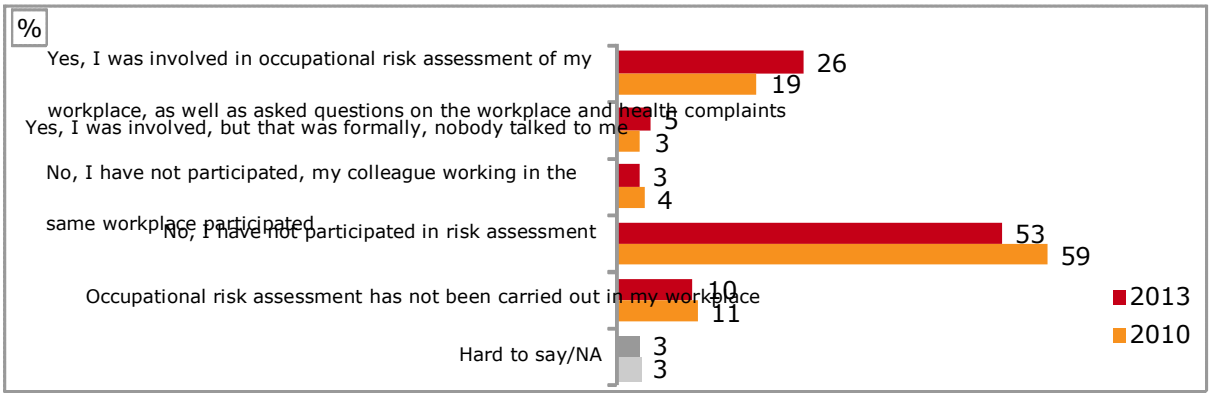
Performance of occupational risk assessment and existence of barriers preventing implementation of labour protection measures was analysed in similar manner. Number of employers having indicated there are no barriers for implementation of labour protection measures has increased in 2013 – 59.9% (in 2010 – 52.4%, in 2006 – 59.1%). Due to the abovementioned results one may declare that employers are still not sufficiently informed or do not understand importance of the occupational risk assessment in the process of establishment of labour protection system in the company.

According to the employers survey of 2013, similarly as in the survey of 2010, legislation requirements regarding occupational risk assessment more frequently are not followed:

- In small (micro) enterprises;
- In the companies located in Riga and Zemgale region;
- In the companies with following key performance areas – fisheries, agriculture, forestry, manufacture of paper and paper products, polygraphy, construction and manufacture of basic metals and fabricated metal products;
- In the companies private sector;
- In the companies with dominating local property rights;
- In the companies founded between 2011 and 2013.

Opinion of employees. Also during the survey of 2013 employees were asked, whether they had participated in assessment of working place (see Figure 15).

Figure 15. Participation of employees in the occupational risk assessment.



Note: basis – all respondents, in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

Although participation of an employee in the occupational risk assessment of his/her workplace is required by legislation, according to the survey 52.9% (in 2010 – 59.2%) of employees have not participated in such assessment, furthermore – additional 10.5% (in 2010 – 11.2%) have indicated that no such assessment has been carried out in their workplaces at all. This confirms the fact that the employees are still involved in this process insufficiently, therefore, supposedly, in such cases not all occupational risk factors of the respective workplace are being identified and assessed, as well as not all occupational health and safety measures are being determined.

In 2013 on average 25.6% of respondents were involved in occupational risk assessment on its merits (in 2010 – 19.2%) – men representing 26.4% of the respondents (in 2010 – 22.6%) were involved slightly more frequently than women – 25.0% (in 2010 – 16.8%). Similarly as in 2010 no significant differences among groups of different age residents were observed also in 2013 (in 2013 – from 18.6 to 27.1%. Also in 2013 Latvians have indicated on participation in the occupational risk assessment more frequently (in 2013 – 28.7%, in 2010 – 23.1%) than respondents of Russian (in 2013 – 18.7%, in 2010 – 11.2%) or other nationalities (in 2013 – 23.2%, in 2010 – 15.7%). In addition, also in 2013 along with increase of educational level number of respondents having participated in occupational risk assessment of their workplaces is growing (basic education: in 2013 – 17.1%, in 2010 – 11.9%, higher education: in 2013 – 31.9%, in 2010 – 29.3%). Significant differences can be observed in companies depending, whether salaries are paid in envelope (remuneration is never paid in envelope: in 2013– 26.6%, in 2010 – 20.9%, sometimes: in 2013 – 24.9%, in 2010 – 17.7%, every month: in 2013 – 13.4%, in 2010 – 6.0%). Collective agreements in workplaces increase proportion of the respondents having participated in occupational risk assessment (in companies with collective agreement: in 2013 – 32.1%, in 2010 – 27.1%, in companies without collective agreement: in 2013 – 25.1%, in 2010 – 16.9%); similar situation is with existence of representatives of the employees within the company (with representatives: in 2013 – 33.5%, in 2010 – 28.4%, without representatives: in 2013 – 20.1%, in 2010 – 16.6%).

According to the employees survey, 21.1% of respondents indicated that employer provided occupational risk assessment in their companies (authorities) in 2013 (in 2010 – 14.0%, in 2006 – 13.2%), and in comparison with the results of previous years this indicator has grown. According to the survey of 2013 most frequently occupational risks are assessed in electricity, gas and steam supply (41.0%), mining and quarrying companies (32.9%), manufacture of paper and paper products, polygraphy (38.3%), basic metal and fabricated metal product manufacturing companies (34.8%),

manufacturing companies (27.5%), agriculture, forestry (25.2%), health and social care sector (21.7%) and construction sector (21.3%), but least frequently – in fisheries companies (12.8%), wood, products of wood and cork and furniture manufacturing companies (19.5%), and water supply, sewerage and waste management companies (19.2%). According to the survey of 2010 most frequently the occupational risks were assessed in mining and quarrying companies (44.1%), basic metal and fabricated metal product manufacturing companies (33.1%), manufacturing (33.0%) and construction companies (29.2%), but least frequently – in textile and clothing product manufacturing companies (2.2%), wood, products of wood and cork and furniture manufacturing companies (5,6%), paper and paper products manufacturing and polygraphy companies (5.8%) and water supply, sewerage and waste management companies (8.0%). Whereas according to the survey of 2006 most frequently the occupational risk was assessed in mining and quarrying companies (46.0%), electricity, gas and steam supply companies (38.9%), least frequently – in fisheries (8.5%), manufacturing (9.4%), health and social care (10.6%), and construction (10.9%).

Risk assessment was indicated by men more frequently (in 2013 – 25.8%, in 2010 – 20.3%, in 2006 – 16.5%) than by woman (in 2013 – 17.2%, in 2010 – 9.6%, in 2006 – 10.6%). No significant difference was observed among groups of different age respondents in 2013 – 17.9% – 22.7% (in 2010 – 11.8% – 15.2%; in 2006 – 12.2% –13.8%), as well as among respondent with different ethnical background (in 2013 – Latvians – 22.9%, Russians – 18.5%, other – 15.4%; in 2010 – Latvians – 15.8%, Russians – 10.5%, other – 11.5%; in 2006 – Latvians – 14.5%, Russians – 10.9%, other – 12.6%). Also in 2013 occupational risk assessment was more frequently indicated by the respondents of the public sector – 23.1% (in 2010 – 16.2%, in 2006 – 18.7%) in comparison with employees of the private sector – 20.1% (in 2010 – 13.5%, in 2006 – 10.3%) and non-governmental organizations – 14.6% (in 2010 – 10.5%, in 2006 – 9.9%). Following tendency still remains: along with the increase of size of the company number of respondents in whose companies employer has provided occupational risk assessment is growing (in 2013 – 1–10 employees – 11.3%, 11–49 employees – 21.9%, 50–249 employees – 24.6%, 250 and more employees – 31.8%; in 2010 – 1–10 employees – 12.1%, 11–49 employees – 23.0%, 50–249 employees – 19.8%, 250 and more employees – 31.4%, in 2006 – 1–9 employees – 6.9%, 10–49 employees – 12.1%, 50–249 employees – 16.1%, 250 and more – 20.6%). Also, according with the survey of 2013 the occupational risk assessment has been carried out least frequently in companies, where the salaries every month are paid in envelopes (in 2013 – 5.0%, in 2010 – 2.0%), but more frequently – in companies, where the salaries sometimes are paid in envelopes (in 2013 – 11.2%, in 2010 – 23.3%) and where the salaries are never paid in envelopes (in 2013 – 22.6%, in 2010 – 14.3%), and this matches with the survey of 2006. In all studies similar situation can be observed also in employees survey indicating that occupational risk assessment has been carried out more frequently in the companies located in other cities – 24.4% (in 2010 – 13.7%, in 2006 – 16.6%) or small villages, hamlets and in rural areas – 19.5% (in 2010 – 17.8%, in 2006 – 16.9%), instead of Riga – 19.1% (in 2010 – 11.7%, in 2006 – 8.4%).

Although the results of the employees survey do not allow make accurate conclusions on percentage of the employees who are not aware of the performed occupational risk assessment (if any), and on percentage of the companies where such an assessment has not been carried out, however, both cases lead to conclusion that legislation requirements regarding occupational risk assessment more often are not followed:

- Companies with following key performance areas: agriculture, forestry, mining and quarrying, manufacture of textile and clothing products, manufacture of wood, products of wood and

cork and of furniture, manufacture of paper and paper products, polygraphy and water supply, sewerage and waste management;

- Private sector companies;
- Small (micro) and large companies;
- Companies located in Latgale and Riga region;
- Companies where the salaries every month are paid in envelopes.

See the thematic Annex "Occupation factors and their assessment" for more detailed information.

3.2.4 Compliance with legislation regarding legal labour relations

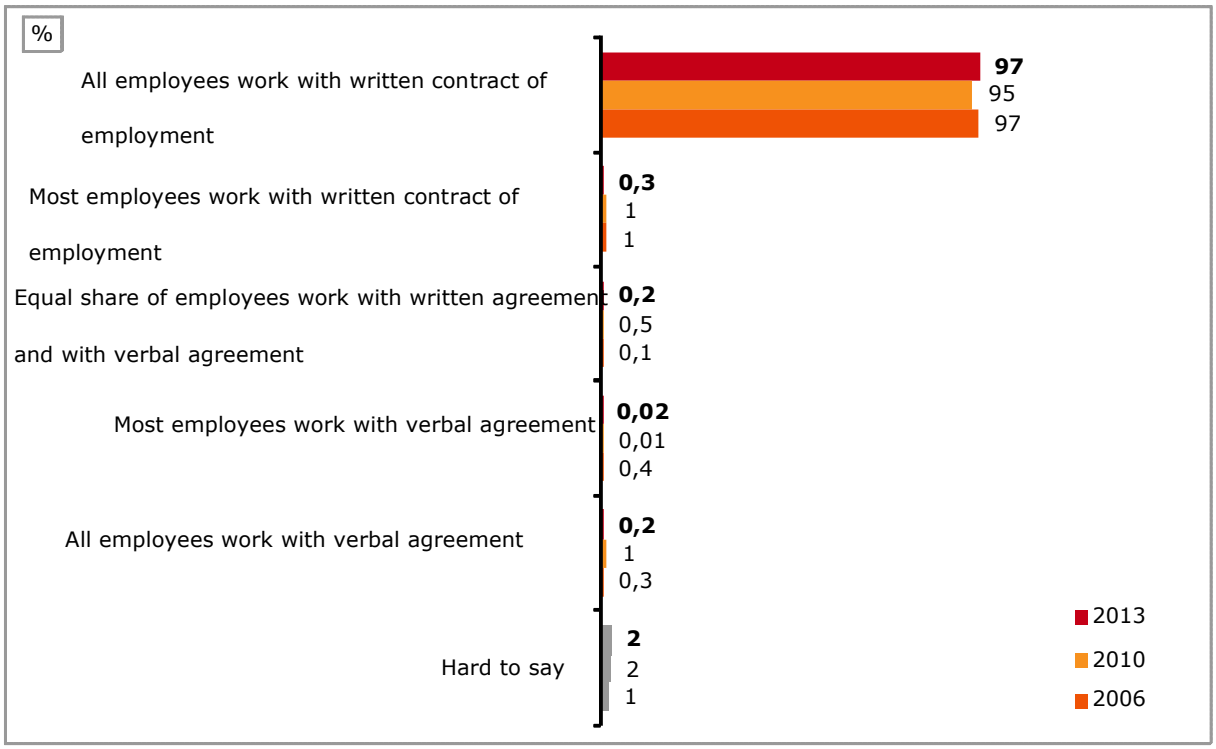
Labour Law regulating mutual relations between employers and employees – rights, duties and liability, entered into force on 1 July 2002. Pursuant to the Labour Law a number of Regulations of the Cabinet of Ministers have been issued determining minimum salary, updating limitations regarding employment of children and young people, determining seasonal works and other.

Labour Law sets an obligation for the employer and employee to enter into a written contract of employment prior to commencement of work. With a contract of employment the employee undertakes to perform specific work, subject to specified working procedures and orders of the employer, while the employer undertakes to pay the agreed work remuneration and to ensure fair and safe working conditions that are not harmful to health.

If there is no written contract of employment, the employee risks failing to receive guarantees that he/she is entitled to under labour legislation defining legal labour relations. For example, to get remuneration for the time worked, annual leave, job termination compensation, others. Only legal contracts (that is, if the employer pays taxes for the employee) will warrant that employee's social guarantees are being protected by Latvian legislation. It means that in case of workplace accidents or occupational diseases, the State Social Insurance Agency will cover costs of medical care, rehabilitation and related additional costs and will also compensate loss of work ability; and only legally drawn employment relationships warrant the right to unemployment benefits.

Opinion of employers. The employers were asked what portion of their employees has a written contract and what – a verbal agreement. According to the survey of 2013, 97.1% of respondents have answered that they have entered into written contracts of employment with all of their employees (in 2010 – 95.2%, in 2006 – 96.9%) (see Figure 16).

Figure 16. Dominance of written contracts and verbal agreements in companies.



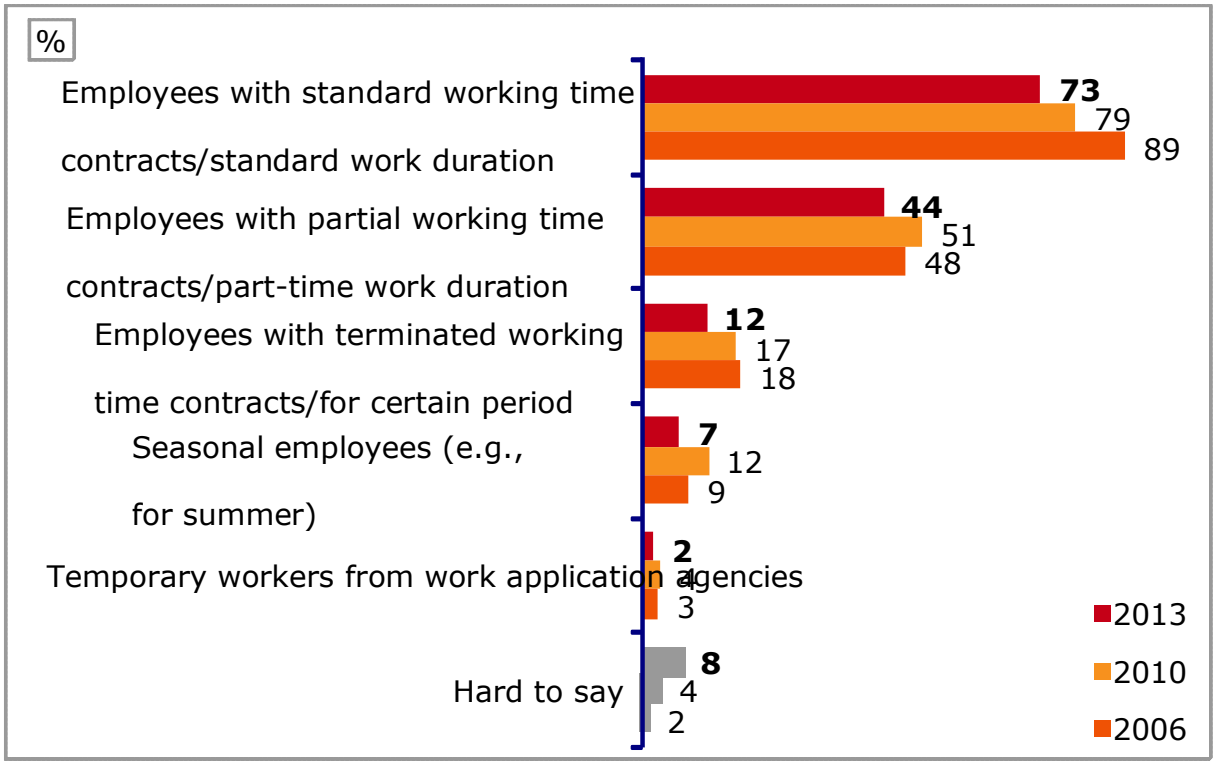
Note: basis – all respondents, in 2006: n = 1058, in 2010: n = 1044; in 2013: n = 1044.
Source: Employers survey.

Since the number of respondents having indicated that a written contract of employment has not been concluded with all employees is still low in 2013 (only seven respondents; in 2010 – only six respondents), more detailed analysis of that issue across the sectors was not possible. One can guess that among the high risk sectors (from a perspective of occupational health and safety) such cases also in 2013 were indicated in agriculture and forestry sectors, fisheries, textile and clothing product manufacturing, basic metal and fabricated metal product manufacturing and mining and quarrying companies. Also in 2013 all of these cases have been indicated regarding private sector and companies, where number of employees is from 1 to 10, located in a small village, hamlet or rural area, all such cases were indicated by the top managers of the company and Latvian speaking respondents.

Although the issue regarding possibility of inclusion of penalty in the Administrative Violations Code for working without written contract with the employees has been revised for several times (for example, during of the development of illegal employment plan 2010 – 2013 and informal economy reduction plan), the research group considers that prevision of such penalty would be useful, because this would encourage reporting to the responsible authorities in order to promote disclosure of such cases and reduce illegal employment. Since usually occupational health and safety violations are also usually observed in the companies operating illegal employment, it is recommended to concentrate especially on the sectors with high risk from a perspective of occupational health and safety to narrow number of companies to be inspected.

Analysing types of the contracts of employment and working hours one may conclude that also in 2013 most frequently contracts of standard working hours are concluded in Latvia (73.0%) (see Figure 17).

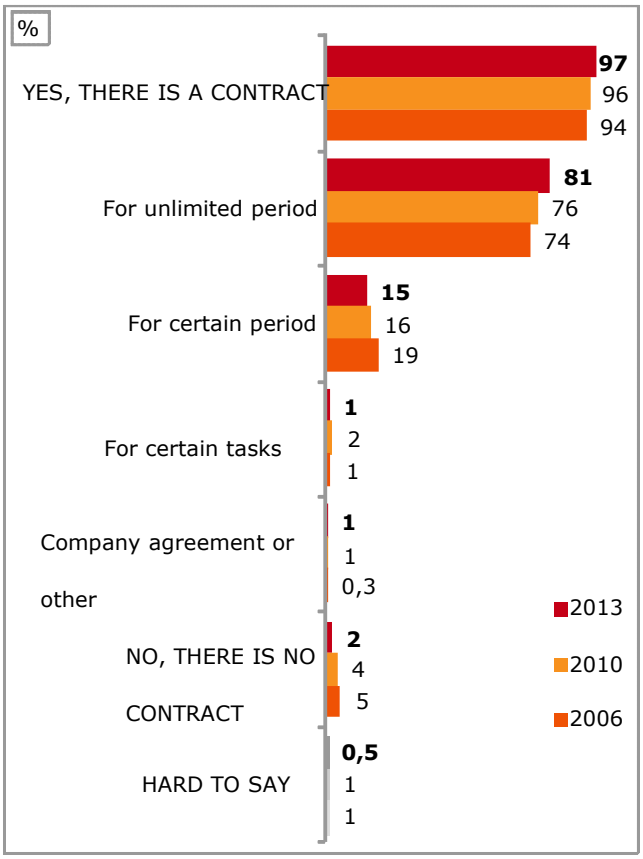
Figure 17. Distribution of types of contracts and working hours in companies.



Note: basis – all respondents, in 2006: n = 1058, in 2010: n = 1044.
Source: Employers survey.

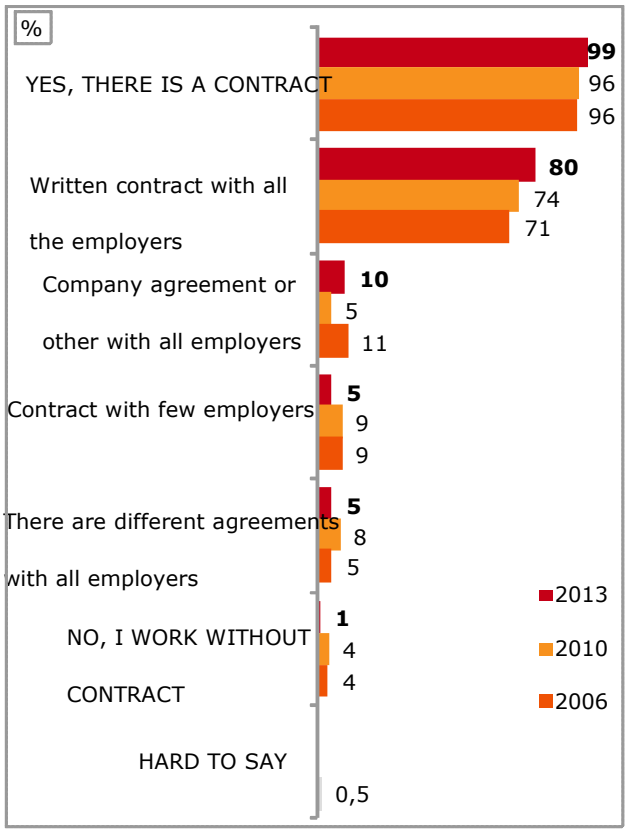
Opinion of employees. Analysis of employees survey indicates that very small portion of respondents do not have written employment contracts or contracts of other type (see Figures 18 and 19).

Figure 18. Written contracts for employees working for one employer.



Note: basis – workers with one employer, in 2006: n = 2235, in 2010: n = 2181; in 2013: n = 2208.
Source: Employees survey.

Figure 19. Written contracts for employees working for more than one employer.



Note: basis – workers with more than one employer, in 2006: n = 220, in 2010: n = 197; in 2013: n = 175.
Source: Employees survey.

The two respondent groups show approximately similar results, but our further analysis will make a special emphasis on respondents, who do not have written contracts. It is important to note also in 2013 that according to the survey results, among people, who work for more than one employer, number of those, who do not have a written contract with any or some of his/her employers/clients, is higher than among those, who work only for one employer. However, in comparison with surveys of previous years, their number has slightly decreased (see Figures 18 and 19).

In 2013 among the respondents working for one employer, most frequently employees without a written contract occur in agriculture and forestry sector (11.0%), wood, products of wood and cork and furniture manufacturing (7.5%), electricity, gas and steam supply (4.2%), and construction sector (18.8%); while among the respondents working for more than one employer only one of them indicated working without written contract in 2013 (0.05%). Whereas, in 2010 contracts most frequently were not concluded in paper and paper products manufacturing, polygraphy sector (16.0%), construction sector (16.0%) and agriculture and forestry sector (7.9%); among the respondents working for more than one employer – in manufacturing (50.0% of respondents admitted that contracts have been concluded with a few employers/clients), agriculture and forestry sector (29.6% of respondents admitted that contracts have been concluded with a few employers/clients) and construction sector (18.4% of respondents admitted that contracts have been concluded with a few employers/clients, but 11.2% of respondents indicated working without contracts).

Also in 2013 among men number of cases of no contracts was higher (in 2013: one employer – 3.3%, more than one employer – 1.3%; in 2010: one employer – 4.9%, more than one employer – 22.2%; in 2010: one employer – 5.2%, more than one employer – 12.7%) than women (in 2013: one employer – 1.1%, more than one employer – 0.0%; in 2010: one employer – 3.3%, more than one employer – 14.1%). In comparison with the surveys of employees of all age groups working for one employer with written contract in previous years, rate of no-contract cases has decreased, but among employees with more than one employer decrease of the rate of no-contract cases down to one employee has been observed. Whereas, in 2006, when higher rate of no-contract cases was among younger respondents, this trend had changed, and in 2010 the highest rate of no-contract cases was among respondents aged 45 to 54 years (one employer – 2.6%, more than one employer – 20.1%) and among respondents aged 25 to 34 years (one employer – 5.9%, more than one employer – 21.7%) (see Table 8).

Table 8. Number of employees without a written contract of employment/contract with client.

	Average in Latvia (%)		18–24 years (%)		25–34 years (%)		35–44 years (%)		45–54 years (%)		55–80 years (%)	
Year	**1**	**2+**	**1**	**2+**	**1**	**2+**	**1**	**2+**	**1**	**2+**	**1**	**2+**
2006	5.2	12.7	13.2	27.7	4.3	14.2	4.0	15.4	5.3	7.0	2.6	3.4
2010	3.9	17.1	4.6	10.8	5.9	21.7	3.7	13.2	2.6	20.1	2.8	16.6
2013	2.1	0.5	3.9	8.0 (n=1)	2.5	-	1.7	-	1.3	-	2.5	-

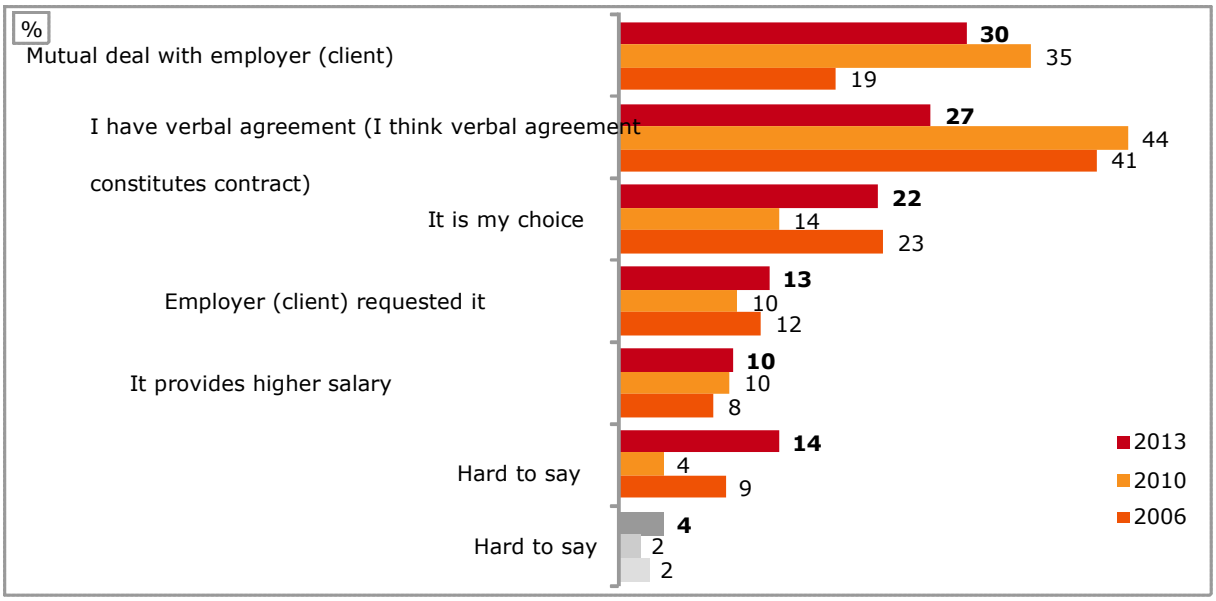
Notes: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013: n = 2208.
1 – employees working for one employer with contract for unlimited period; 2+ – employees working for more than one employer with contract for unlimited period.
Source: Employees survey.

Also in 2013 slight differences in responses regarding failure to enter written contracts of employment were observed among respondents with different ethnical background, but it must be noted that in dynamics nonbeing of the written contracts has decreased significantly in 2013 (one employer: in 2013 from 2.2% (Russians) to 1.8% (other nationalities), in 2010 from 5.0% (other nationalities) to 3.9% (Russians); more than one employer: in 2013 – from 0.7% (Latvians) to 0.0% (Russians and other nationalities), in 2010 from 17.4% (Latvians) to 37.4% (other nationalities). Also in 2013 in public sector number of those without written contracts of employment is slightly lower (one employer: in 2013 – 0.3%, in 2010 – 1.3%, more than one employer: in 2013 – 0.0%, in 2010 – 3.2%) than in private sector (one employer: in 2013 – 3.2%, in 2010 – 4.6%, more than one employer: in 2013 – 1.0%, in 2010 – 17.2%). In 2013 similarly as in 2010 work without contract was more frequently indicated by respondents from small companies (1–10 employees) (one employer: in 2013 – 6.2%, in 2010 – 4.5%, more than one employer: in 2013 – 2.2%, in 2010 – 12.9%) than by respondents from larger companies (11–49 employees – one employer: in 2013 – 1.8%, in 2010 – 1.3%, more than one employer: in 2013 – 0.0%, in 2010 – 10.7%; 50–249 employees: in 2013 – 0.4%, in 2010 – one employer – 1.5%, more than one employer: in 2013 – 0.0%, in 2010 – 5.6%; 250 and more employees – one employer: in 2013 – 0.0%, in 2010 – 0.1%, more than one employer: in 2013 – 0.0%, in 2010 – 0.0%). Furthermore, it must be noted that in dynamics working of employees without written contracts has grown in small enterprises (up to 10 employees).

Analysing the reasons, why workers are ready to commence work without a written contract of employment or other written agreement, it must be concluded that in 2013 the most frequently mentioned answer is mutual agreement (in 2013 – 29.8%, in 2010 – 35.3%, in 2006 – 18.6%), and the

employees assume that a verbal agreement is also a contract (in 2013 – 26.7%, in 2010 – 43.6%) (see Figure 20). Supposedly, this fact is related to lack of understanding of the employees regarding necessity of the contract and lack of awareness on consequences that may arise if employment relationships are not set in a legally binding manner. This shows that one of the main target groups regarding public awareness issues on necessity of the employment contract consists of employers, who choose to determine such order in their companies.

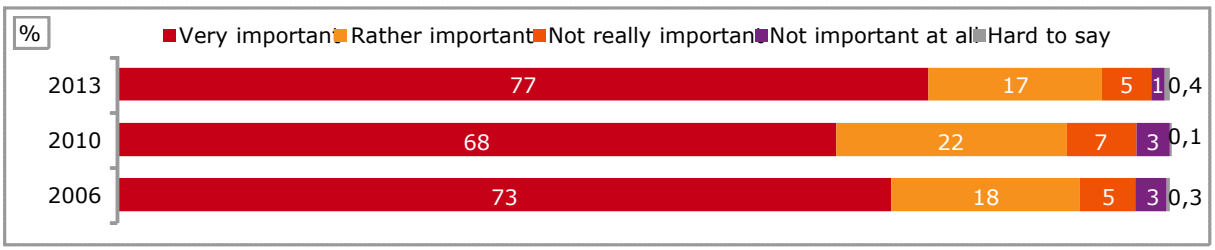
Figure 20. Reasons behind lack of written contract of employment or other contract.



Note: basis – workers without written contracts of employment, in 2006: n = 144, in 2010: n = 63; in 2013: n = 56.
Source: Employees survey.

The employees were also asked to assess, how important it is for them to have a written contract of employment with their employer. In 2013 in total, 93.6% of all respondents indicated that it is more or less important to them, but according to the survey of 2010 it was important to 90.1% of employees to have a written contract of employment with employer. Whereas, in 2006 in total, 91.4% of all respondents indicated that it is more or less important to them. Thus, the number of respondents considering written contract of employment important has grown in comparison with the previous surveys (see Figure 21).

Figure 21. Importance of having written contracts of employment among employees.



Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

Depending on the sector represented by the respondents in 2013 written contracts of employment were found more important by the employees of following sectors: health and social care (98.3%), fisheries (97.9%), metal and fabricated metal product manufacturing sector (94.1%), electricity, gas and steam supply sector (94.0%), manufacturing (93.7%) and production of food and beverages (93.6%), but less important – by the workers employed in agriculture, forestry (82.9%) and paper and paper product manufacturing sector (85.5%). Whereas in 2010 written contracts of employment were found more important by respondents representing following sectors: electricity, gas and steam supply sector (99.3%), production of food and beverages (96.3%), and metal and fabricated metal product manufacturing sector (95.6%), but less important – by the employees working in construction sector (79.5%), manufacturing (83.0%) and water supply, sewerage and waste management (85.5%).

Depending on gender of the respondents in 2013 women found written contracts of employment more important than men (men: in 2013 – 91.1%, in 2010 – 88.7%; women: in 2013 – 95.6%, in 2010 – 91.1%). Answers in division by the age of respondents also in 2013 provide tendency that employees of middle age find written contracts of employment more important, whereas it is found less important by older, and not young respondents, as it was observed in 2010 (aged 18–24 years: in 2013 – 94.2%, in 2010 – 86.1%, aged 25–34 years: in 2013 – 93.3%, in 2010 – 89.4%, aged 35–44 years: in 2013 – 94.9%, in 2010 – 91.7%, aged 45–54 years: in 2013 – 93.7%, in 2010 – 90.6%, aged 55–80 years: in 2013 – 91.9%, in 2010 – 90.8%).

Also, depending on educational level of the respondents following tendency remains – the higher is educational level of the respondent, the more important is written contract of employment (elementary education, uncompleted primary education: in 2013 – 87.5%, in 2010 – 100.0%, primary education: in 2013 – 86.2%, in 2010 – 86.1%, secondary education: in 2013 – 90.2%, in 2010 – 89.7%, secondary vocational education: in 2013 – 95.0%, in 2010 – 90.0%, higher education: in 2013 – 95.5%, in 2010 – 92.0%). However, it must be taken into consideration that in 2010 the data show 100% of respondents with elementary education or uncompleted primary education finding important written contracts of employment, but they should be considered occasional data, because only 3 respondents out of 2378 complied with this criterion. In 2010 no significant differences or tendencies were observed in the provided answers regarding importance of written contract of employment across occupation of respondents, but in 2013 following tendency was observed – the higher is the rank of specialist, the higher is the necessity for written contract (top manager of the authority, company: in 2013 – 100.0%, in 2010 – 87.7%, operational manager: in 2013 – 92.8%, in 2010 – 91.2%, top level specialist: in 2013 – 96.0%, in 2010 – 88.6%, specialist: in 2013 – 95.6%, in 2010 – 92.7%, employee of services and trade sector: in 2013 – 94.3%, in 2010 – 91.4%, qualified worker, craftsman: in 2013 – 91.9%, in 2010 – 87.4%, unqualified worker: in 2013 – 90.0%, in 2010 – 92.4%).

Also in 2013 by classification of the level of salary employees earning more than minimum remuneration find written contract more important, while it is less important to employees earning less than minimum remuneration (in 2010: up to Ls 150 – 87.2%, Ls 151–200 – 84.1%, Ls 201–250 – 90.3%, Ls 251 and more – 91.3%, hard to say – 87.2%; in 2013: up to Ls 150 – 89.1%, Ls 151–250 – 93.3%, Ls 251– 400 – 96.4%, Ls 401 and more – 95.5%, hard to say – 88.4%). Similarly as in 2010, also in 2013 respondents receiving envelope wages find written contract important much less frequently than the respondents never receiving envelope wages (envelope wage paid sometimes: in 2013 – 89.5%, in 2010 – 91.4%, every month: in 2013 – 71.0%, 2010 – 73.6%, never: in 2013 – 95.0%, in 2010 – 92.6%, hard to say: in 2013 – 87.3%, in 2010 – 69.6%). If no significant differences and tendencies were observed among respondents in division by the worker's length of service in 2010, then in 2013 following tendency can be observed – the longer is the length of service, the more

important for the employees is conclusion of the contract of employment (up to 12 months: in 2013 – 90.7%, in 2010 – 88.1%, 1–5 years: in 2013 – 93.3%, in 2010 – 91.4%, 5–10 years: in 2013 – 94.4%, in 2010 – 89.0%, 10–15 years: in 2013 – 94.8%, in 2010 – 92.7%, more than 15 years: in 2013 – 94.8%, in 2010 – 91.0%, hard to say: in 2013 – 100.0% (n=3), in 2010 – 80.3%). If no significant differences can be observed among the answers in division by the number of respondent's working hours of the last week and time dedicated to direct duties in 2010, then in 2013 following tendency can be observed – the lower is the number of working hours of particular employee, the less important for him/her the written contract is.

Employees representing companies which have concluded collective agreement find the written contract more important (92.8%) than the employees representing companies which have not concluded collective agreement (89.7%). The same tendency can be observed depending on, whether representatives of employees have been elected in the company: 94.5% regarding employees from workplaces with elected representatives, and 88.8% regarding employees from workplaces without elected representatives.

Also in 2013 employees from public sector find written contract much more important (in 2013 – 96.2%, in 2010 – 97.3%) than in non-governmental organizations (in 2013 – 93.3%) and private sector (in 2013 – 91.9%, in 2010 – 88.1%). In common with 2010, also in 2013 in the division by the number of employees in respondents' workplace written contracts are much more important for the employees of larger companies (1–10 employees: in 2013 – 90.3%, in 2010 – 89.0%, 11–49 employees: in 2013 – 94.3%, in 2010 – 93.8%, 50–249 employees: in 2013 – 94.9%, in 2010 – 94.8%, 250 and more employees: in 2013 – 95.2%, in 2010 – 96.4%). In 2013, analysing the answers across the region of location of the respondents' workplace, written contracts of employment are found more important by the employees from Tukums region (100%), Aluksne region (100%), Balvi region (100.0%), Valka region (100.0%), Preili region (100.0%) and Dobele region (100.0%), but less important – to the respondents from Jekabpils region (81.9%) and Talsi region (88.5%). Whereas, in 2010, analysing the answers across the region of location of the respondents' workplace, written contracts of employment were found more important by the employees from Tukums region (100%), Saldus region (100%), Kuldiga region (99.9%), Ventspils region (99.6%) and Ludza region (99.0%), but less important – by the respondents from Kraslava region (73.8%) and Limbazi region (72.2%). In general written contracts of employment have been found more important by employees of all regions. Also, in 2013 in division by the type of residential area where the respondents' workplace is located, written contracts of employment are found most important by the employees from cities, but the least important – by the respondents working in Riga (Riga: in 2013 – 92.1%, in 2010 – 87.4%, 8 of the largest cities: in 2010 – 94.1%, regional centre: in 2010 – 88.4%, other city: in 2013 – 95.8%, in 2010 – 95.2%, small village: in 2013 – 92.6%, in 2010 – 91.4%).

See the thematic Annex "Legal labour relations" for more details.

3.3 Occupational risk factors and their prevention

3.3.1 Distribution of occupational risk factors

Occupational risk factors appear in all economic sectors and can affect large numbers of employees. It is difficult to imagine an occupation with absolutely none occupational risk factor that could affect safety or health of an employed individual. The most significant occupational risks are:

- Chemical substances (e.g., varnish, paint, synthetic detergents etc.);
- Physical factors (e.g., noise, vibration, microclimate, lighting etc.);
- Dust (e.g., welding spray, abrasive dust, wood dust etc.);
- Biologic factors (e.g., organisms causing tick-borne encephalitis, viral hepatitis B and C, HIV/AIDS etc.);
- Mechanic factors (e.g., work with equipment and with dangerous equipment, work at height, work in explosive atmosphere etc.);
- Ergonomic factors (e.g., awkward posture, repetitive movements, lifting of heavy objects etc.);
- Psychosocial factors (e.g., shortage of time, overtime work, work at night, bad relationship with superiors and colleagues, conflicts etc.).

There is a traditional opinion in Latvia that in Latvian enterprises conventional occupational health problems, such as noise, vibration, dust, chemical substances etc., prevail, while the developed EU countries mostly deal with psychosocial, managerial and ergonomic risks. Information obtained both during the Study "Work conditions and risks in Latvia, 2005-2007" and description of the situation obtained in 2009-2010 indicated that different psychosocial factors (shortage of time, overtime work, long working hours etc.) and ergonomic factors (work with a computer, lifting of heavy objects, awkward posture, repetitive movements) were one of the most essential occupation risk factors. It means that conventional risk factors were substituted by modern ones. On the other hand, summary of the laboratory measurements showed that microclimate and dust (especially abrasive dust and welding spray) should be considered as significant occupational problems. Taking into account that psychosocial and ergonomic occupational risk factors, as well as microclimate in the working premises usually interfere with each other and even intensifies the effects of one another, this group of risk factors should be treated with great care (for details see thematic Annexes "Microclimate (relative air humidity, air temperature and air velocity)", "Psychoemotional occupational risk factors" and "Ergonomics and ergonomic occupational risk factors"). Analysis of the survey of 2013 shows that no significant changes have occurred since the previous study in Latvia, these changes are more related to changes in production (type and volume of products, provision of workforce and other) and service sector and common global trends (for example, suppliers of cheaper raw materials of higher quality and such), as well as technological opportunities, for example, "teleworking". This is confirmed also by the "Distant work or teleworking" indicated among the five most frequently mentioned factors in 2013 (37.8%) showing that ne newest software, internet and communication technologies allow performance of work from any location outside the office and from abroad, especially in professions like programmers, accountants, customer services specialists etc.

Opinion of employers. Employers were asked to assess within the survey, how many of persons employed in their companies (authorities) were exposed to more than 30 different harmful

occupational factors (due to the huge volume all data were summarized in four chapters – see Figures 22.1, 22.2, 22.3 and 22.4).

Following risk factors should be mentioned among the five most frequently mentioned ones **in 2013**:

1. work with a computer at least 2 hours per day – mentioned by 70.3% of respondents;
2. aggregated working time – 42.2%;
3. awkward posture (e.g., standing, sitting) – 41.5%;
4. distant work or teleworking – 37.8% (in 2010 – 28%. 11th position; in 2006 – 15%, 13th position);
5. working outside under different weather conditions (in summer and winter) – 36.9%.

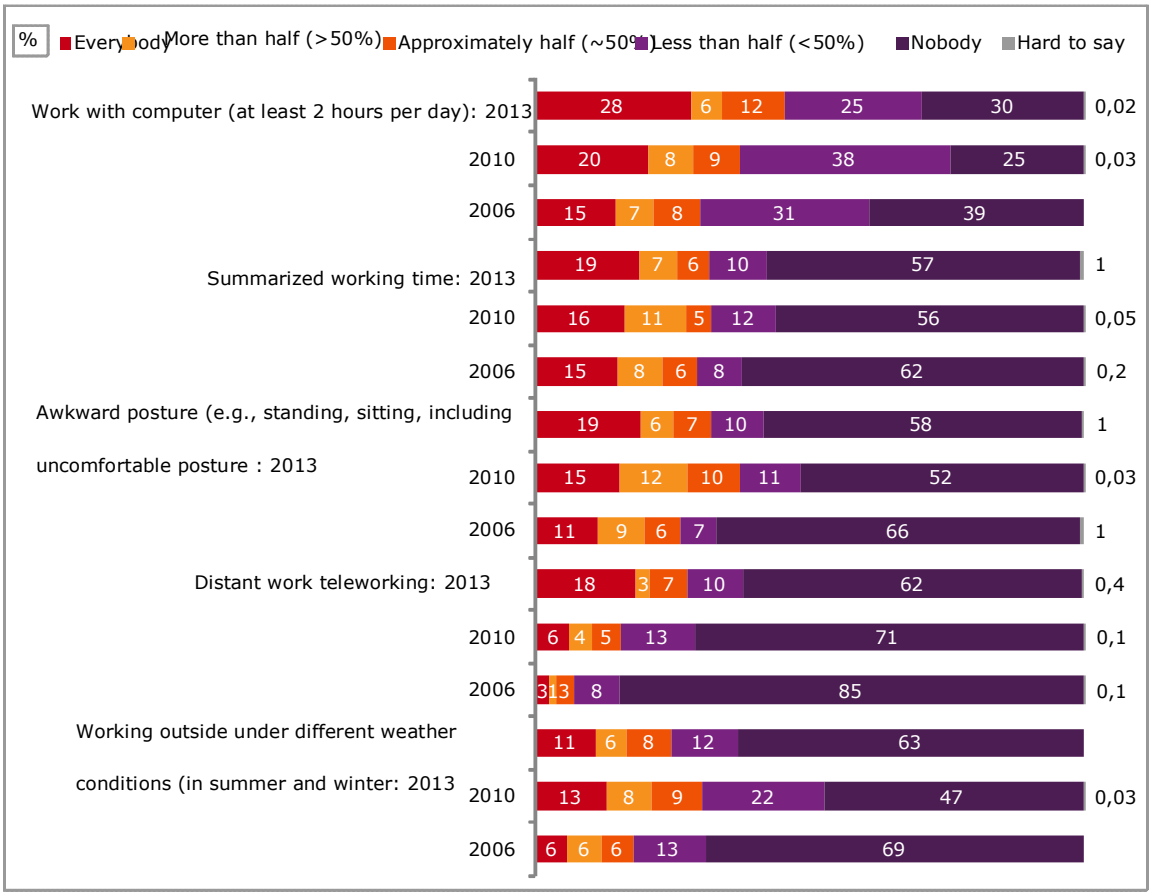
Five most frequently mentioned risk factors **in 2010** were:

1. work with a computer at least 2 hours per day – mentioned by 75.5% of respondents;
2. working outside under different weather conditions (in summer and winter) – 52.5%;
3. awkward posture (e.g., standing, sitting) – 48.4%;
4. aggregated working time – 43.7%;
5. lifting of heavy objects (carrying and handling)– 42.9% (in 2006 – 28.5%, 6th position).

Five most frequently mentioned risk factors **in 2006** were::

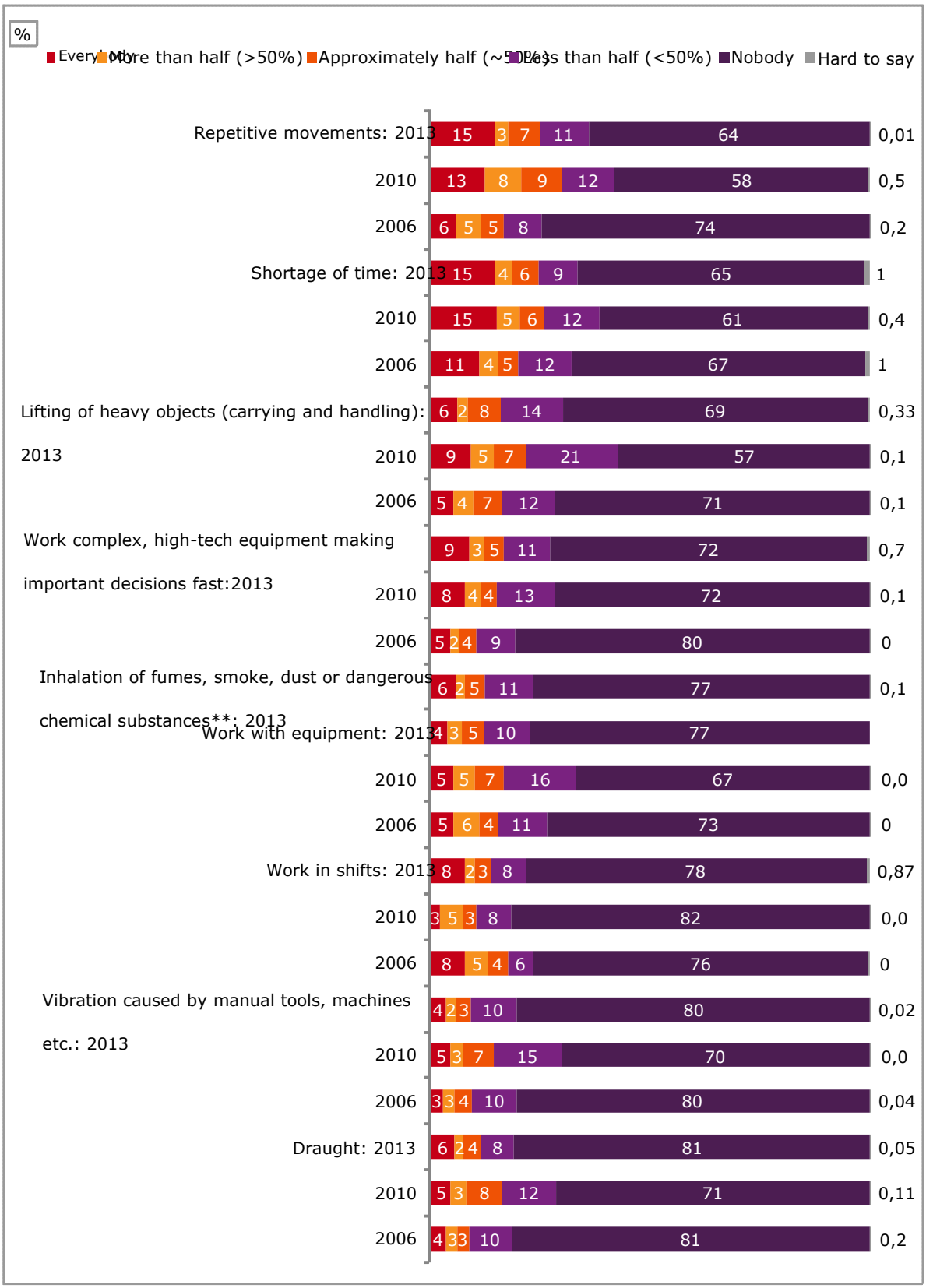
1. work with a computer at least 2 hours per day – mentioned by 60.9% of respondents;
2. aggregated working time – 37.6%;
3. awkward posture (e.g., standing, sitting) – 33.1%;
4. shortage of time – 32.2% (7th position with 38.8% in 2010);
5. working outside under different weather conditions (in summer and winter) – 30.9%.

Figure 22.1. Number of employees exposed to occupational risks within enterprises/ institutions. (Part 1)



Note: basis – all respondents, in 2006: n = 1058; in 2010: n = 1044; in 2013: n = 1004.
Source: Employers survey.

Figure 22.2. Number of employees exposed to occupational risks within enterprises/ institutions. (Part 2)

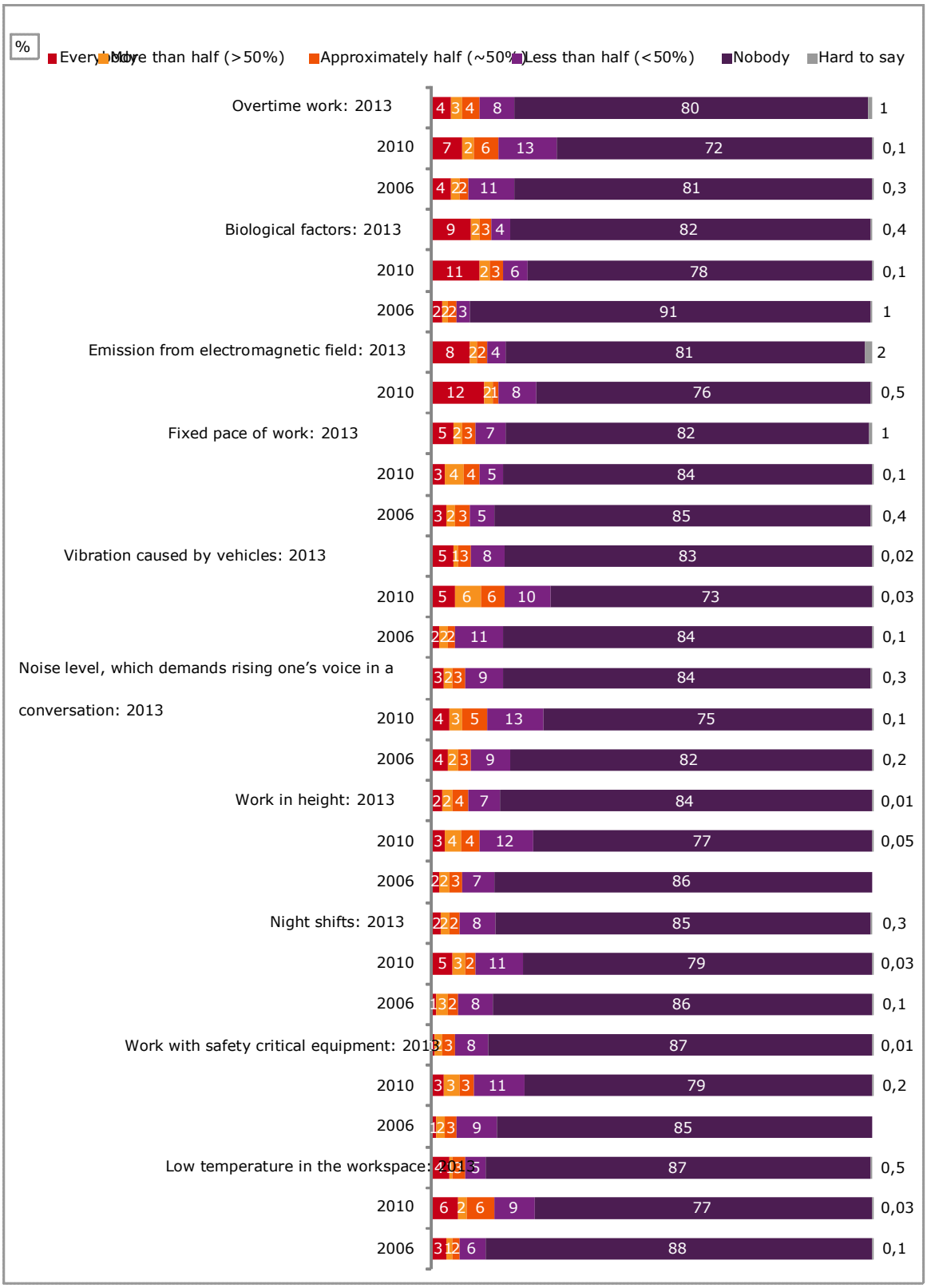


Note: basis – all respondents, in 2006: n = 1058; in 2010: n = 1044; in 2013: n = 1004.

* - such option was not offered for response in 2006.

Source: Employers survey.

Figure 22.3. Number of employees exposed to occupational risks within enterprises/ institutions. (Part 3)

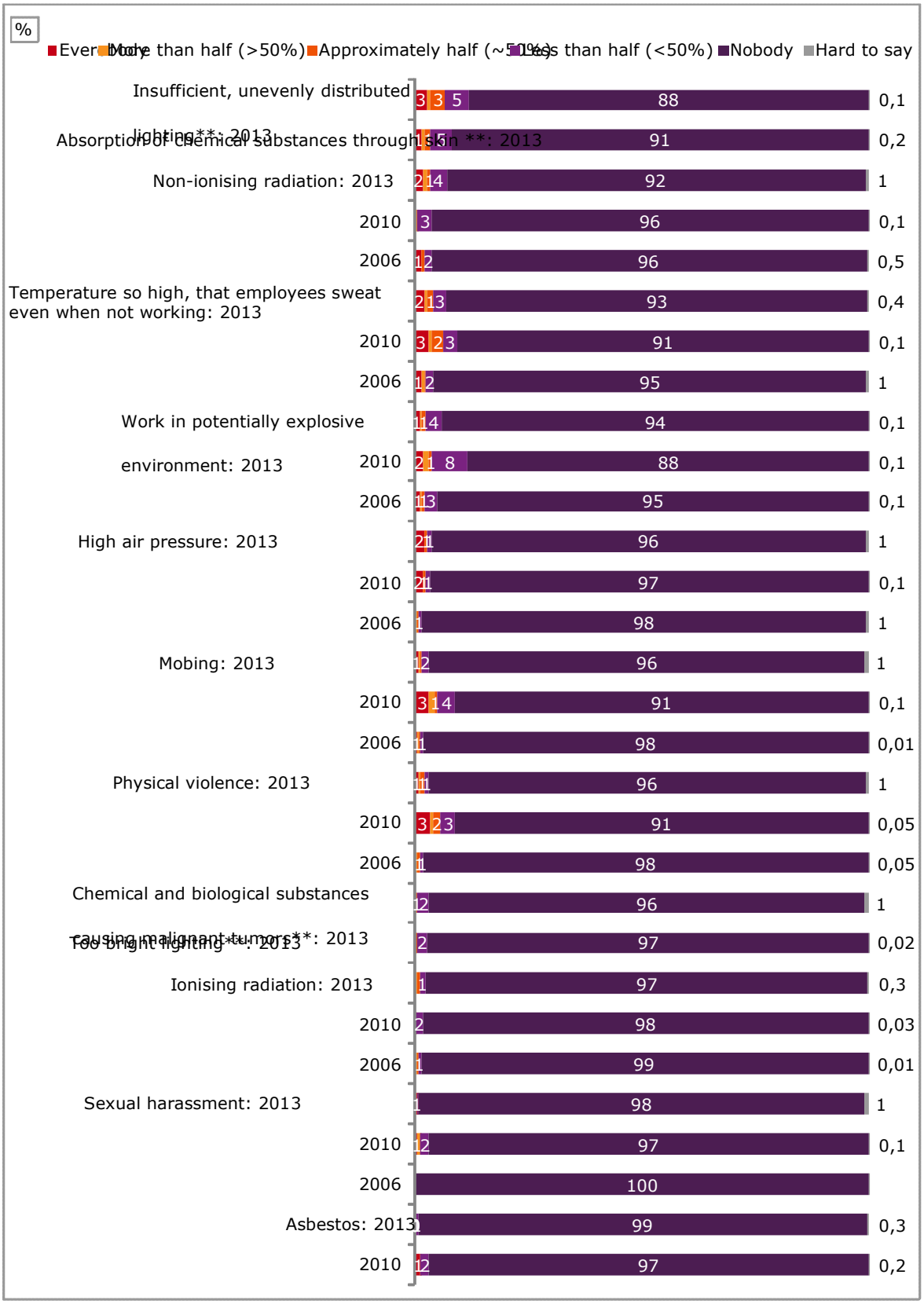


Note: basis – all respondents, in 2006: n = 1058; in 2010: n = 1044; in 2013: n = 1004.

* - such option was not offered for response in 2006.

Source: Employers survey.

Figure 22.4. Number of employees exposed to occupational risks within enterprises/ institutions. (Part 4)



Note: basis – all respondents, in 2006: n = 1058; in 2010: n = 1044; in 2013: n = 1004.

* - such option was not offered for response in 2006.

Source: Employers survey.

Opinion of employees. Employees were asked to assess within the survey, at what extent they were exposed to more than 30 different harmful occupational factors (due to the huge volume all data were summarized in four chapters – see Figures 22.1, 22.2, 22.3 and 22.4).

Following risk factors were mentioned most frequently **in 2013**:

1. Direct contact with people, who are not working in the enterprise, such as purchasers, passengers, students, patients, clients etc. – 63.9%;
2. Repetitive movements – 53.6%;
3. Shortage of time – 52.0% (in 2006 – 51.1%, 6th position);
4. Lifting of heavy objects (carrying and handling) – 49.5%;
5. Draught – 45.4% (in 2010 – 30.0%, 8th position).

Whereas study of **2010** indicated that the five most frequently mentioned risk factors were:

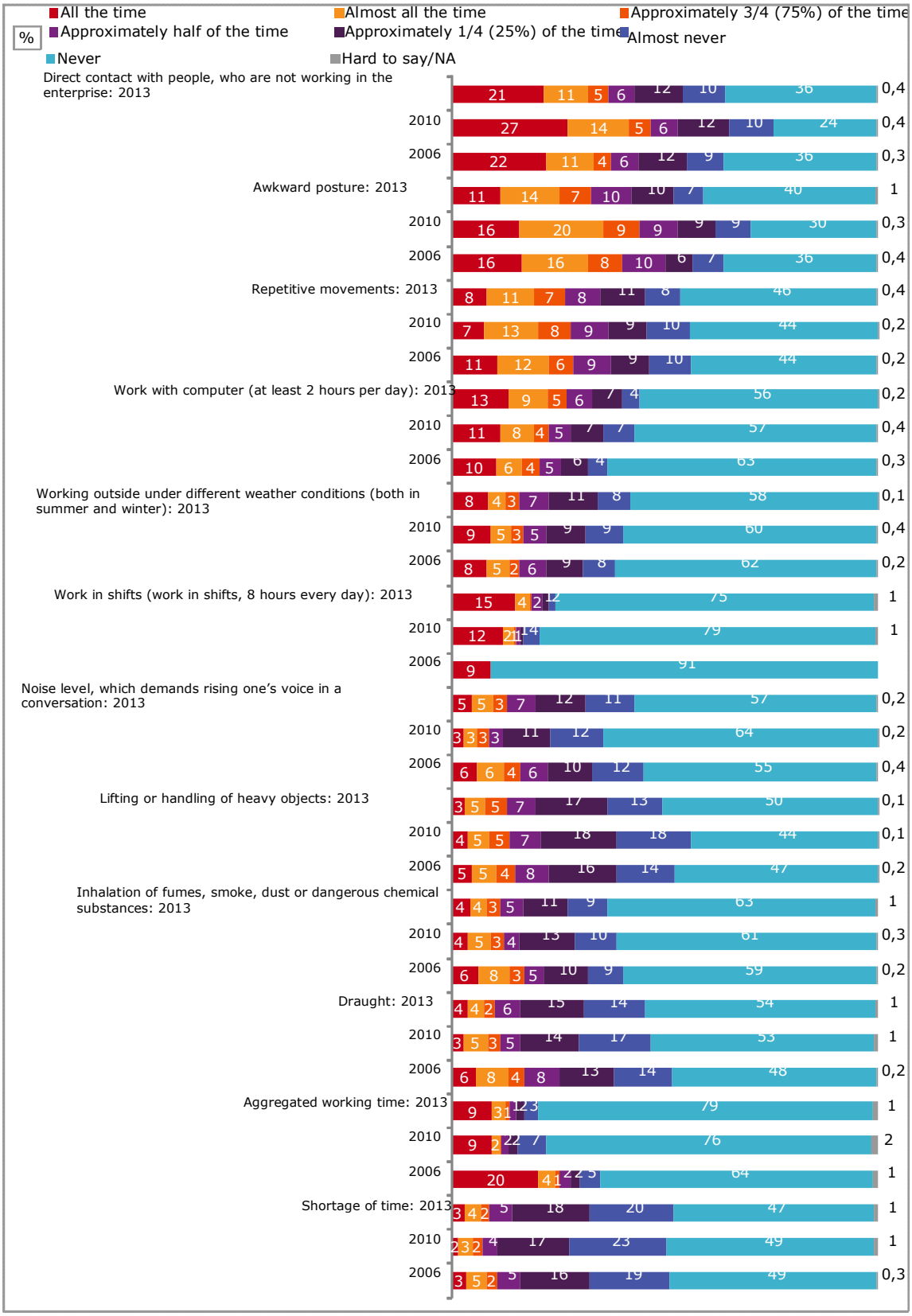
1. Direct contact with people, who are not working in the enterprise, such as purchasers, passengers, students, patients, clients etc. – 75.4%;
2. Awkward posture (e.g., standing, sitting) – 70.2%;
3. Lifting of heavy objects (carrying and handling) – 56.2%;
4. Repetitive movements – 55.9%;
5. Shortage of time – 50.4%.

Following risk factors were mentioned most frequently **in 2006**:

1. Awkward posture (e.g., standing, sitting) – 63.8% of respondents mentioned being exposed to the respective risk factor at some extent;
2. Direct contact with people, who are not working in the enterprise, such as purchasers, passengers, students, patients, clients etc. – 63.8%;
3. Repetitive movements – 56.1%;
4. Lifting of heavy objects (carrying and handling) – 52.4%;
5. Overtime work – 51.7% and draught – 51.7%.

All the most common occupational risk factors have been mentioned also in the surveys of previous years. It must be noted that shortage of time has been mentioned more frequently than in 2010, however, significant changes of the most common occupational risk factors have not occurred, these factors just have been mentioned less frequently. Analysis of the employee survey of 2013 in comparison with the data of employers shows different situation, because employers have mentioned other occupational risk factors: work with computer, aggregated working time, awkward postures, distant work and working outside under different weather conditions.

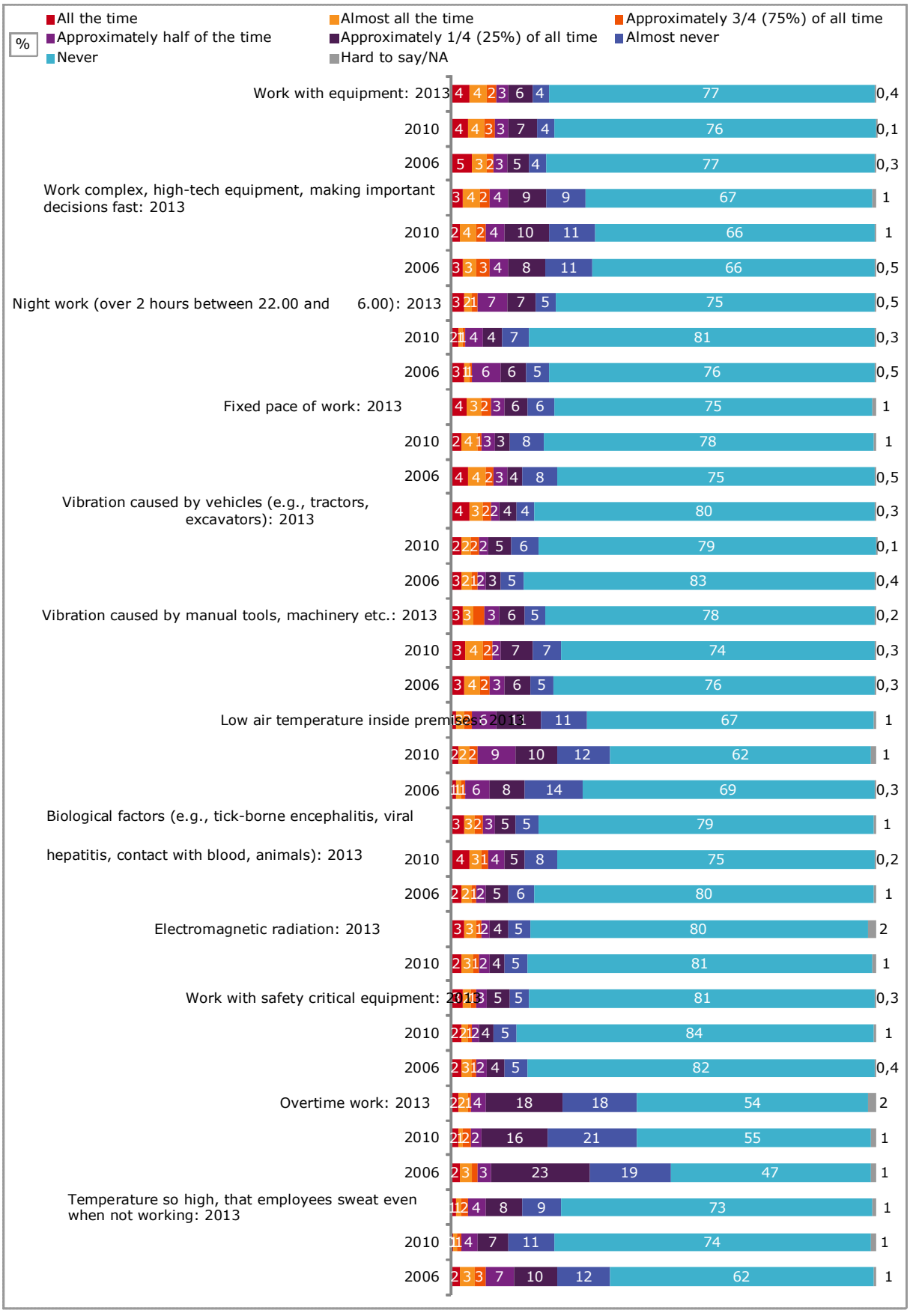
Figure 23.1. Exposure of employees to occupational risk factors. (Part 1)



Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.

Source: Employees survey.

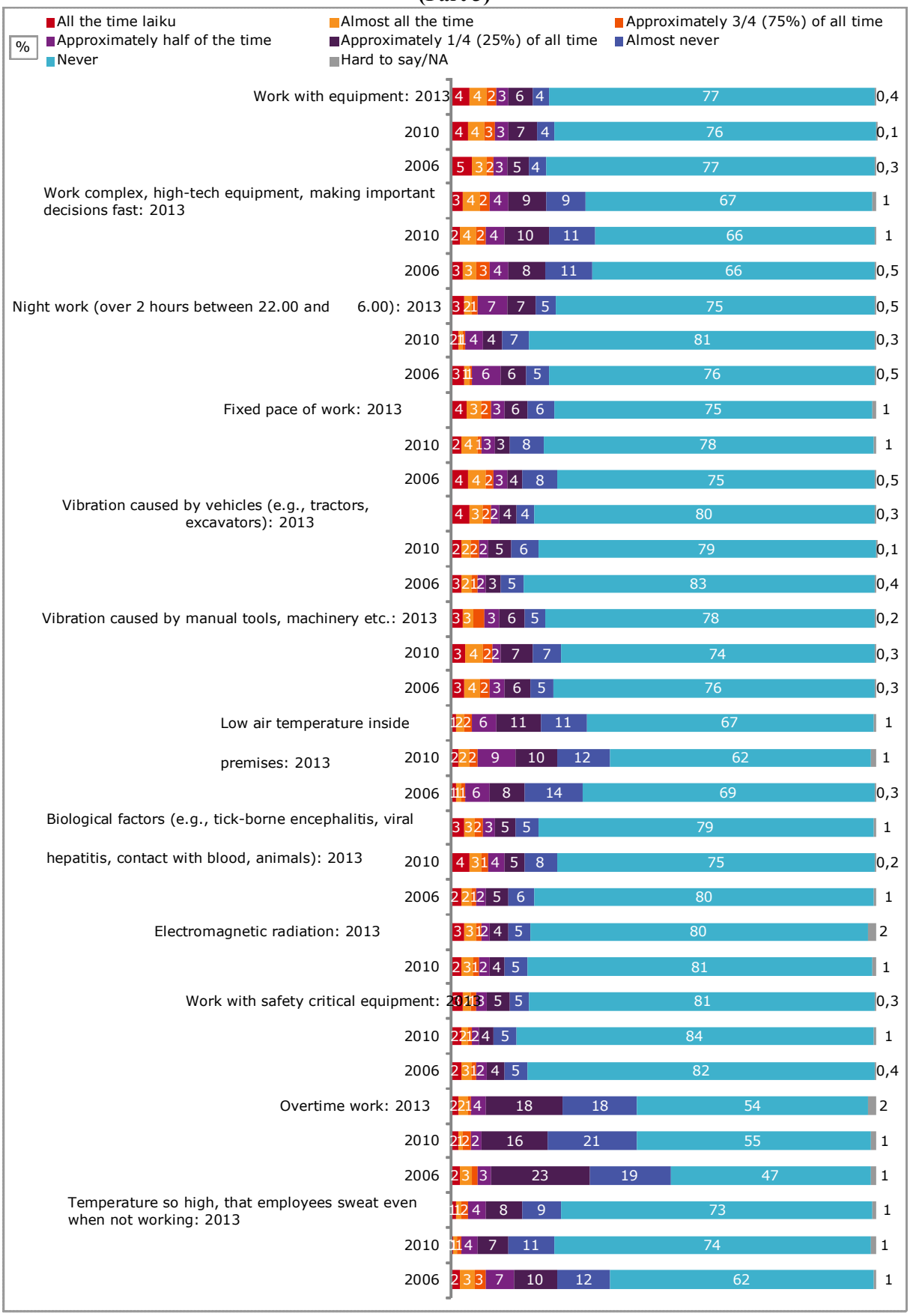
Figure 23.2. Exposure of employees to occupational risk factors. (Part 2)



Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.

* - such option was not offered for response in 2006.
Source: Employees survey.

Figure 23.3. Exposure of employees to occupational risk factors. (Part 3)

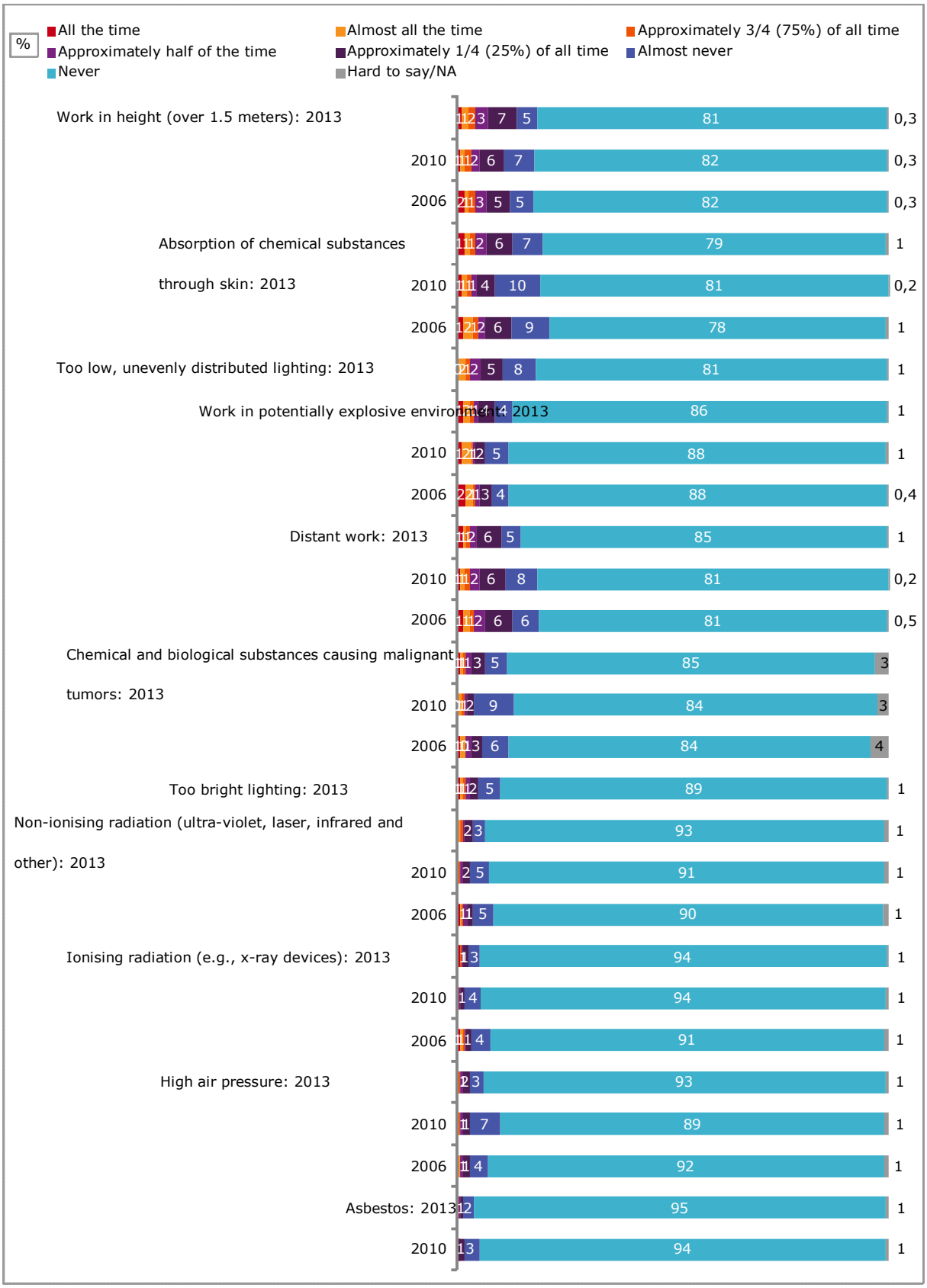


Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.

* - such option was not offered for response in 2006.

Source: Employees survey.

Figure 23.4. Exposure of employees to occupational risk factors. (Part 4)

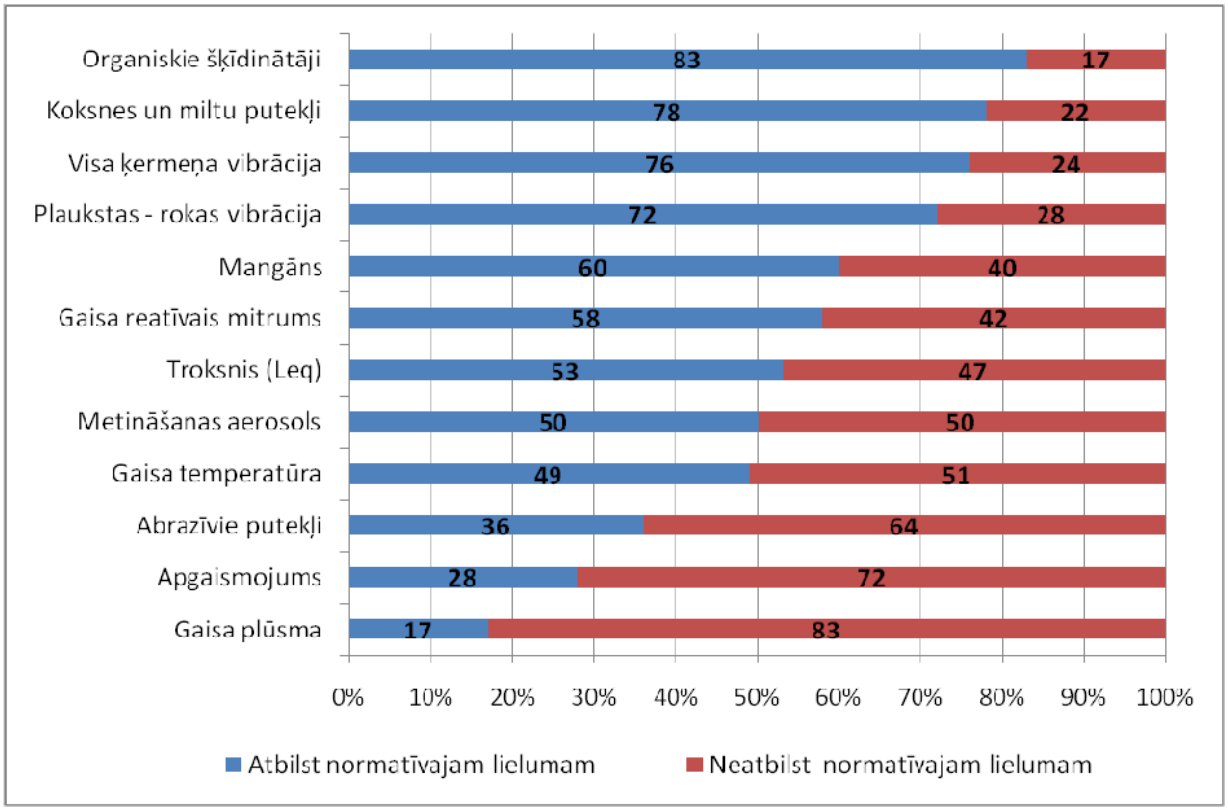


Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.
* - such option was not offered for response in 2006.
Source: Employees survey.

Laboratory measurement results regarding working environment.

In addition to subjective data gathered during surveys, objective data can also be used for analysis of occupational risk factors – laboratory measurements performed upon request of the companies and not including all workplaces, where they should be performed due to lack of financial resources and knowledge to the companies or just because the companies do not consider it necessary of due to other reasons; however, unfortunately, it is not always possible to carry out adequate measurements. Analysis of database of the measurements performed by the Hygiene and Occupational Diseases Laboratory of the Institute for Occupational Safety and Environmental Health of Rīga Stradiņš University helped to assess compliance of the measured values with mandatory or recommendable/recommended standards (see Figure 24).

Figure 24. Compliance of occupational risk factors with mandatory or recommended standards (% of carried out measurements), 1995– 2012



Organiskie šķīdinātāji	Organic mixer substances
Koksnes un miltu putekļi	Wood and sour dust
Visa ķermeņa vibrācija	Full body vibration
Plaukstas – rokas vibrācija	Hand – arm vibration
Mangāns	Manganese
Gaisa relatīvais mitrums	Relative air humidity
Troksnis (Leq)	Noise (Leq)

Metināšanas aerosols	Welding spray
Gaisa temperatūra	Air temperature
Abrazīvie putekļi	Abrasive dust
Apgaismojums	Lighting
Gaisa plūsma	Air flow speed
Atbilst normatīvajam lielumam	Complies with mandatory limit
Neatbilst normatīvajam lielumam	Does not comply with mandatory limit

Source: Database of measurements performed by the Institute for Occupational Safety and Environmental Health of Rīga Stradiņš University.

As reflected in Figure 24, more than one third of measured values of most occupational risks exceed mandatory or recommended limits. There could be an explanation that measurements are carried out only in workplaces selected by the client (for example, employer or competent specialist), but not in all workplaces, thus, possibly, the "most dangerous" and "most hazardous" workplaces are selected, as well as that measurements are more frequently ordered by the companies operating in the dangerous sectors or conscientiously following the occupational health and safety requirements.

According to the database of work environment measurements, improper microclimate should be considered as the most problematic issue, especially inappropriate air flow speed (incompliant in 83%) and inappropriate air temperature (51%). Bad microclimate can cause such unspecific diseases, as cold, as well as aggravate course of already prevalent diseases, for example, draught can worsen course of musculoskeletal disorders. Mostly these diseases are related with absence that negatively affects performance of the company. Furthermore, microclimate affects subjective condition and work ability of employees, thus decreasing quantity and quality of the performed job. Inappropriate microclimate is mostly found in offices with bad air exchange and insufficient ventilation, in outdoor sheltered and semi-sheltered workplaces, as well as in workshops having draught (for details see thematic Annex "Microclimate"). Second most essential problem is lighting in the working environment, most of measurements (72%) indicate insufficient level, since main reasons were fused bulbs, dirty windows, lack of local lighting etc. (for details see thematic Annex "Lighting").

Third most essential problem in the working environment is dust, especially – abrasive dust caused by abrasive tools (e.g., polishing equipment) and welding spray (for details see thematic Annexes "Dust" and "Welding spray, manganese and chromium in welding and gas cutting").

For details regarding laboratory measurements within work environment see thematic Annex "Objective assessment of working conditions and occupational risk factors – laboratory measurements within work environment".

3.3.2 Measures for occupational risk prevention

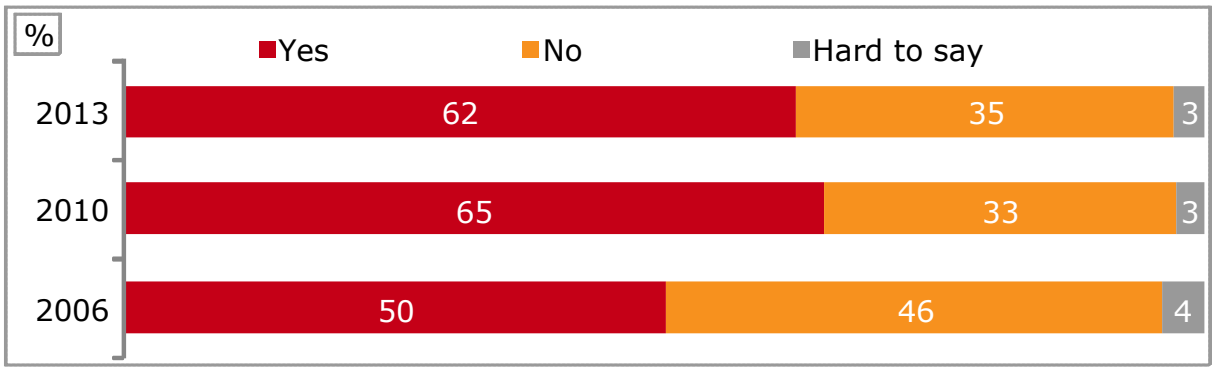
Regulations of the Cabinet of Ministers No. 660 "Procedures for the Performance of Internal Supervision of the Work Environment" (adopted on 02.20.2007, in force as of 06.10.2007) define that upon assessment of occupational risk one shall determine measures for prevention or reduction of this risk. Labour Protection Law, in its turn, defines that employer shall consider following general principles regarding occupational health and safety:

- Setting up of the work environment in such a way as to avoid occupational risk or to reduce the impact of unavoidable occupational risk;
- Preventing the causes of occupational risk;

- Adapting the work to the individual, mainly as regards the design of workplaces, work equipment, as well as in respect of the choice of work and production methods paying special attention to alleviating monotonous work and work at a predetermined work-rate and to reducing negative effect thereof on health;
- Taking into account technical, hygiene and medical developments;
- Replacing the dangerous by the safe or the less dangerous;
- Developing a co-ordinated and comprehensive system of labour protection measures;
- Giving priority to collective labour protection measures in comparison with individual labour protection measures;
- Preventing the impact of work environment risk on the safety and health of those employees for whom in accordance with regulatory enactments special protection has been specified;
- Performing employee instruction and training in the field of labour protection; and
- Co-operating in the field of labour protection with employees and trusted representatives.

Opinion of employers. According to the requirements of the Regulations of the Cabinet of Ministers No. 660 "Procedures for the Performance of Internal Supervision of the Work Environment" (adopted on 02.20.2007, in force as of 06.10.2007), taking into account occupational risk assessment results and information obtained during inspection of workplaces, employer shall define labour protection measures for prevention or mitigation of identified occupational risks, as well as define deadlines and responsible persons for implementation of such measures. Therefore, during the Study employers, who declared that occupational risk assessment is fully or partially carried out in their enterprises, were asked, if there is a programme of preventive measures for improvement of working environment and risk mitigation in their companies (authorities) (see Figure 25).

Figure 25. Availability of programme of measures for occupational risk prevention in enterprises having undergone occupational risk assessment



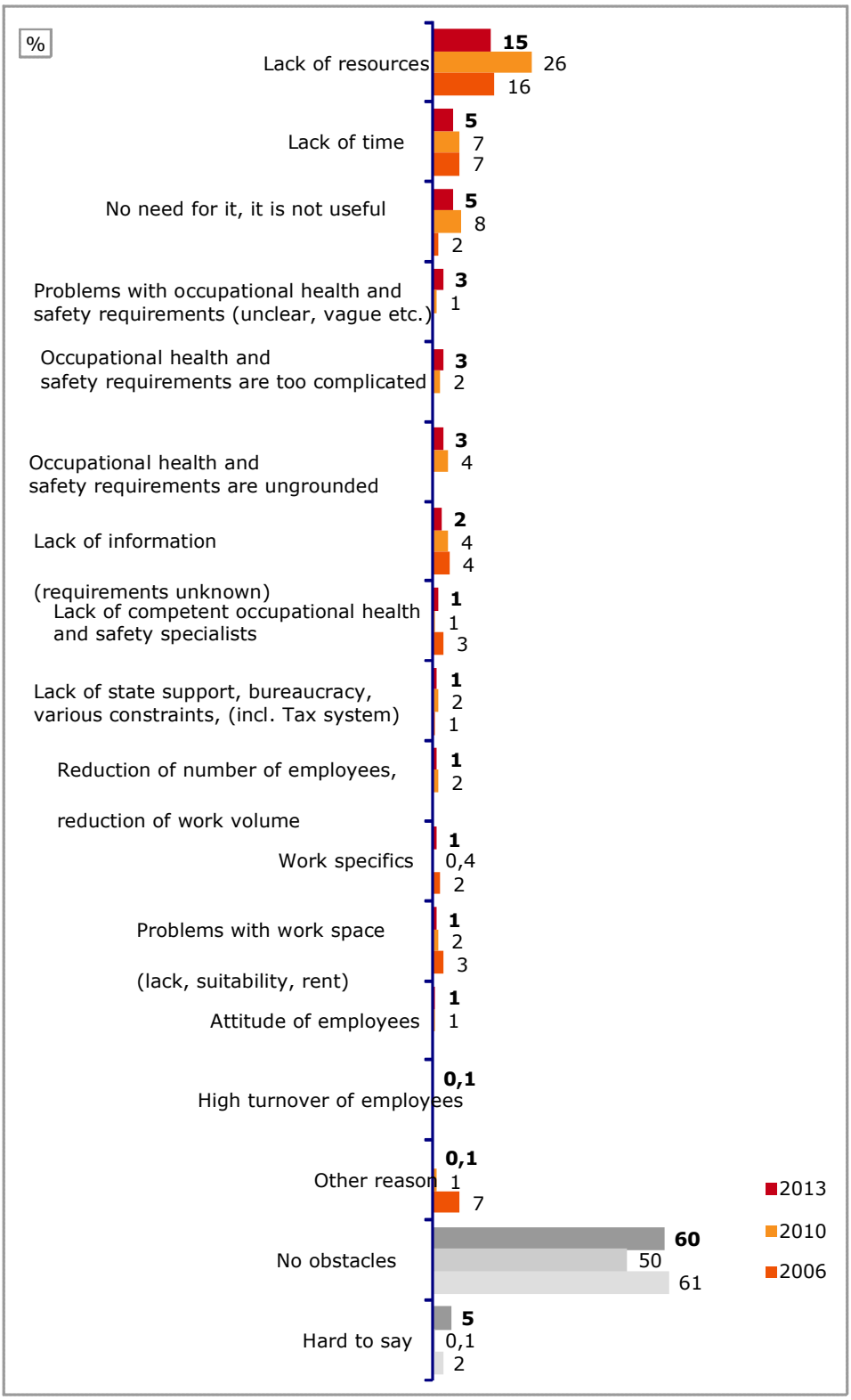
Note: basis – respondents whose companies have undergone occupational risk assessment, in 2006: n = 576; in 2010: n = 621; in 2013: n = 659.
Source: Employers survey.

In general the situation in 2013 in comparison with 2010 has just slightly deteriorated, but, in comparison with 2006 it is still better. Employers were not directly asked, why there was no programme of measures for prevention or mitigation of occupational risks developed after occupational risk assessment, therefore it is impossible to find reasons for such a situation.

35.5% of all surveyed employers (in 2010 – 49.5%, in 2006 – 36.7%) admitted that there are obstacles for carrying out labour protection measures in their company (authority), which, in comparison with the previous surveys is the lowest, i.e., the best indicator. However, there is still a huge number – 59.9% of all respondents (in 2010 – 50.4%, in 2006 – 61.0%) having declared that there are no obstacles for implementation of such measures. According to the employers, the most frequently faced obstacles regarding implementation of labour protection measures in their company are: lack of resources – 15.4% (in 2010 – 25.9%), that, most likely, indicates on the end of the economic crisis and general improvement of situation.

Other most frequently mentioned reasons of failure to perform labour protection measures: shortage of time – 5.3% (in 2010 – 7.3%) of all respondents; no need and sense to do this – 5.2% (in 2010 – 7.6%) of all respondents; labour protection requirements are ungrounded, unclear and vague – 2.9% (in 2010 – 4.1%) of all respondents; labour protection requirements are too complicated – 2.8%; other reasons were mentioned less frequently (see Figure 26 for more detailed division of reasons).

Figure 26. Obstacles for carrying out occupational health and safety measures according to the opinion of employers



Note: basis – all respondents, in 2006: n = 1058, in 2010: n = 1044, in 2013: n = 1044.
Source: Employers survey.

Also in 2013 upon analysis in dimension of sectors it must be noted that most frequently mentioned obstacle regarding implementation of necessary labour protection measures is lack of resources in all

sectors, except for mining and quarrying (5.8%). In 2013 this obstacle most frequently was mentioned by the employers from health and social care sector (69.1%) and manufacture of wood, products of wood and cork and of furniture (43.8%). In their turn the obstacles most frequently mentioned in mining and quarrying sector were: attitude of employees (7.8%) and bureaucracy (6.1%). Across the sizes of companies lack of resources was the least frequently mentioned obstacle in micro-enterprises in 2010, whereas the most frequently – in companies with 50 – 249 employees, but in 2013 following tendency can be observed – the larges the company is, the higher number of respondents has indicated lack resources as the main obstacle regarding implementation of labour protection measures in the companies (1–10 employees – 23.4%, 11–49 employees – 36.7%, 50–249 employees – 53.8%, 250 and more employees – 39.6%). Sorting by the year of foundation of the company, also in 2013 lack of resources was least frequently mentioned by newly founded companies (companies founded before 1990: in 2013 – 46.4%, in 2010 – 37.3%; companies founded between 1991 and 1995: in 2013 – 21.2%, in 2010 – 23.7%; companies founded between 1996 and 2000: in 2013 – 6.7%, in 2010 – 30.0%; companies founded between 2001 and 2005: in 2013 – 9.0%, in 2010 – 25.9%; companies founded between 2006 and 2010: in 2013 – 14.2%, in 2010 – 16.4%; companies founded between 2011 and 2013: in 2013 – 4.1%). Similarly as in 2010, also in 2013 lack of resources in the public sector was mentioned most frequently (in 2013 – 51.4%, in 2010 – 59.1%) than in non-governmental organizations (in 2013 – 23.9%, in 2010 – 22.3%) and private sector (in 2013 – 13.0%, in 2010 – 24.8%). In general, analyzing lack of resources in dynamics across the years it can be observed that in 2013 lack of resources obstructing implementation of labour protection measures as the main reason was mentioned by the employers less frequently, however, this is still the main reason. It would be important to pay attention to the fact that at least half of the employers included in all surveys have no obstacles for the implementation of labour protection measures, but they are not implemented.

Furthermore, employers survey shows that 11.3% (in 2010 – 12.7%) of employers in Latvia have mentioned reduction of expenses regarding employees safety and health safety issues (for example, individual protection equipment, compulsory health examinations) as the best opportunity of cost reduction in the respective sector, which is similar indicator with the survey of 2010. Simultaneously it must be indicated that this is comparatively infrequently mentioned kind of cost reduction, because, for example, cost economizing and refusal from unnecessary luxury was mentioned in 72.7% (in 2010 – 62.6%), systematic analysis of work process and improvement of efficiency – 60.7% (in 2010 – 60.2%), additional investments for improvement of efficiency of labour – 24.1% (in 2010 – 38.9%), reduction of staff according to decrease of the volume of work – 43.6% (in 2010 – 37.6%), postponement of investment and development plans to the future – 38.2% (in 2010 – 32.4%), which generally indicates on increase of cost reduction measures. Most frequently following sectors are ready to economize on labour protection measures: health and social care (in 2013 – 25.6%), employers of construction companies (in 2013 – 21.1%, in 2010 – 32.3%), metal and fabricated metal product manufacturing (in 2013 – 18.0%) and agriculture, forestry (13.9%), but employers of water supply, sewerage and waste management companies are ready to economize on the abovementioned measures significantly less frequently in 2013 (in 2013 – 7.0%, in 2010 – 25.1%). No significant difference has been observed depending on number of employees of the company (in 2013 – 9.9 – 23.8%; in 2010 – 11.4 – 18.3%), but it must be noted that large companies economize more frequently. While in 2010 such "economy" was mentioned significantly more frequently by the companies founded between 2006 and 2010 (in 2013 – 8.5%, in 2010 – 26.9%), in 2013 these are also the new companies founded between 2011 and 2013 (25.0%), and this trend is basically related to lack of understanding. In 2013 such answers were given less frequently in companies with both foreign and local property rights (in 2013 – 2.3%), but in companies with dominating local property rights – more

frequently (in 2013 – 11.6%, in 2010 – 12.6%) than in companies with dominating foreign property rights (in 2013 – 10.6%, in 2010 – 3.5%). If the data are analyzed across VDI regions, largest part of the respondents who would be ready to economize on labour protection issues, are located in Kurzeme region (in 2013 – 18.8%, in 2010 – 3.5%), but the smallest part – in Vidzeme region – 6.8%.

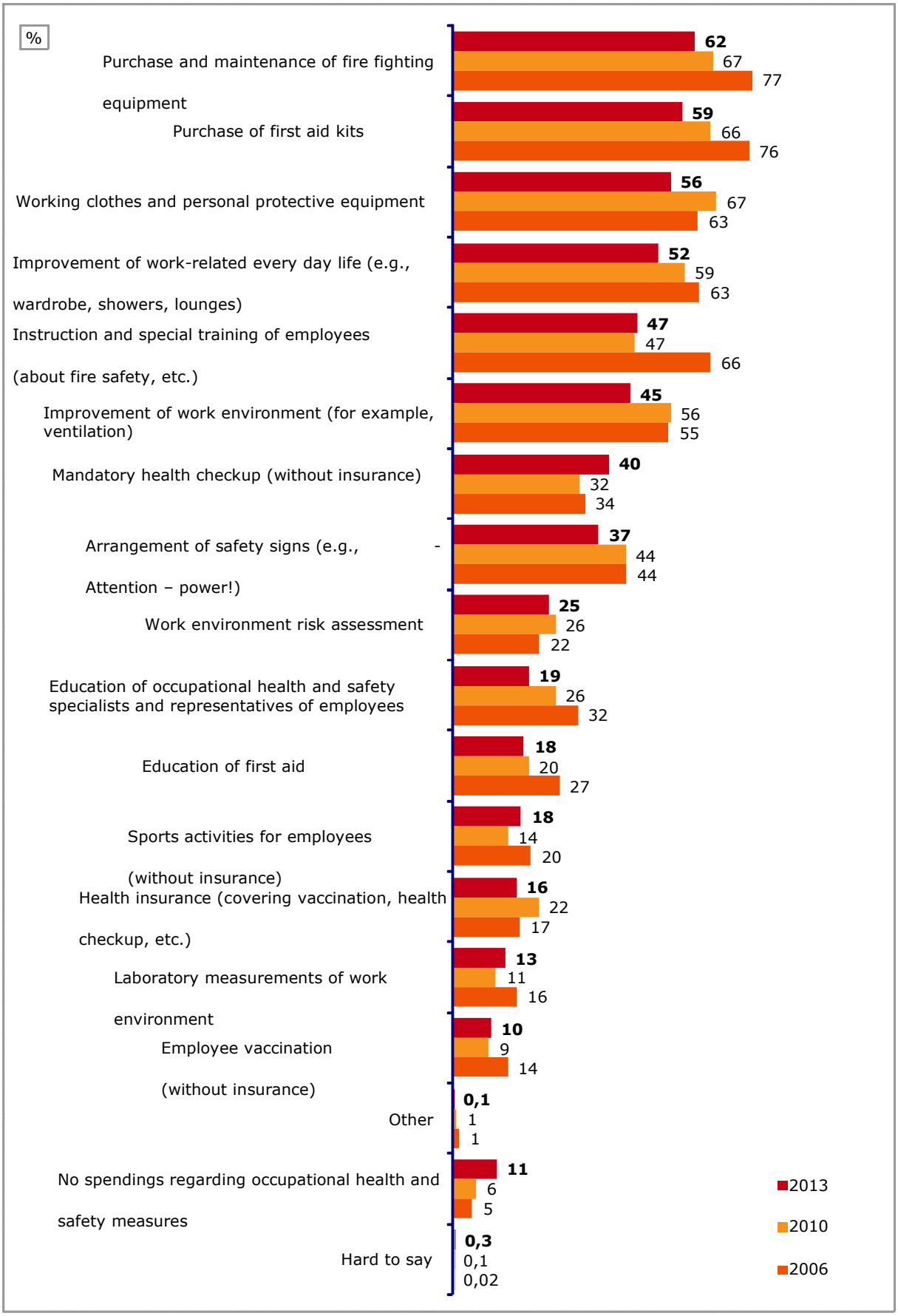
It must be noted that in comparison with data of 2010 significantly lower number of respondents mentioned lack of information as one of the other main obstacles for implementation of labour protection measures in 2013 (in 2013 – 2.35%, in 2010 – 4.1%, in 2006 – 4.5%), however, reasons like: ungrounded labour protection requirements, vague and unclear requirements, too complicated requirements have become topical.

In 2013 most frequently obstacles were mentioned by the respondents representing following sectors: health and social care (in 2013 – 87.9%), manufacture of wood, products of wood and cork and of furniture (in 2013 – 69.1%, in 2010 – 76.5%, in 2006 – 65.5%), manufacture of basic metals and fabricated metal products (in 2013 – 65.2%, in 2010 – 62.5%, in 2006 – 62.7%), manufacture of textile and clothing products (in 2013 – 52.5%), manufacturing (in 2013 – 57.4%, in 2010 – 64.3%), construction (in 2013 – 47.4%, in 2010 – 61.3%) and Latvian speaking respondents (Latvian: in 2013 – 36.5%, in 2010 – 51.2%, in 2006 – 40.0%; Russian: in 2013 – 31.5%, in 2010 – 43.5%, in 2006 – 30.9%). It must be noted that in 2006 there were also respondents from education (55.0%) and food production (52.5%) sectors. In general it is observed across all sectors, that employers mention obstacles regarding implementation of labour protection requirements less frequently, except for health and social care sector, manufacture of basic metals and fabricated metal products, manufacture of textile and clothing products, and this could be explained by the fact that due to economic crisis lack of resources and other factors preventing from implementation of labour protection requirements are most acute for these sectors. Depending on size of the company in 2013, similarly with 2010, existence of obstacles was mentioned least frequently by the micro-enterprises, but most frequently – by companies with 50 to 249 employees (1–10 employees – 47.2%, 11–49 employees – 61.4%, 50–249 employees – 69.5%, 250 and more employees – 54.8%). Supposedly, these results may be explained by lack of understanding on labour protection issues. In division by the foundation year of the company, similarly as in 2010, also in 2013 existence of obstacles was mentioned most frequently by the companies founded before 1990, but least frequently – by the companies founded between 2001 and 2005, thus the tendency is slightly different from the situation back in 2006, when it was concluded that new companies face obstacles less frequently than the companies founded earlier (before 1990: in 2013 – 54.2%, in 2010 – 61.3%, between 1991 and 1995: in 2013 – 41.2%, in 2010 – 35.5%, between 1996 and 2000: in 2013 – 33.1%, in 2010 – 37.1%, between 2001 and 2005: in 2013 – 28.3%, in 2010 – 33.7%; between 2006 and 2010: in 2013 – 33.2%; between 2011 and 2013: in 2013 – 30.1%).

When asked directly on recent financial investments within the company, 11.3% (in 2010 – 6.0%, in 2006 – 4.7%) of the employers answered that no resources have been spent for labour protection purposes, in addition number of such employers has increased significantly (in fact – doubled) in comparison with the results of studies from the previous years. According to the survey of 2013, most frequently for labour protection purposes no resources have been spent in companies representing following sectors: fisheries (13.3%), construction (12.4%), manufacture of paper products and polygraphy (10.4%), manufacture of wood, products of wood and cork and of furniture (in 2013 – 9.4%, in 2010 – 9.9%) and manufacture of textile and clothing products (in 2013 – 9.0%, in 2010 – 8.5%), but according to the survey of 2006 such companies most frequently represented agriculture, forestry and hunting sector (9.8%, but in 2013 – only 0.6%), as well as education (11.0%).

Survey of 2013 shows that most frequently employers have invested sources in purchase and maintenance of fire-fighting equipment (61.8%), purchase of first aid kits (58.5%), purchase of working clothes and individual protective equipment (55.9%), improvement of work-related everyday life (52.4%), instruction and special training of employees (47.1%) and improvement of working environment (45.2%). Whereas, survey of 2010 shows that employers most frequently invested sources in purchase of working clothes and individual protective equipment (67.4%), purchase and maintenance of fire-fighting equipment (66.6%) and improvement of work-related everyday life (59.2%), but in 2006 measures related to provision of action in emergency situations were mentioned most frequently – purchase and maintenance of fire-fighting equipment (76.6%) and purchase of first aid kits – 75.8% (see Figure 27). As it is obvious from all three surveys of employers, nearly all answers show reduction, and these answers have been provided less frequently than in 2006, except for the question regarding compulsory health examinations of the employees (without insurance) – 40.0%, and this shows that employers invest decreasing amount of resources in different measures related to labour protection.

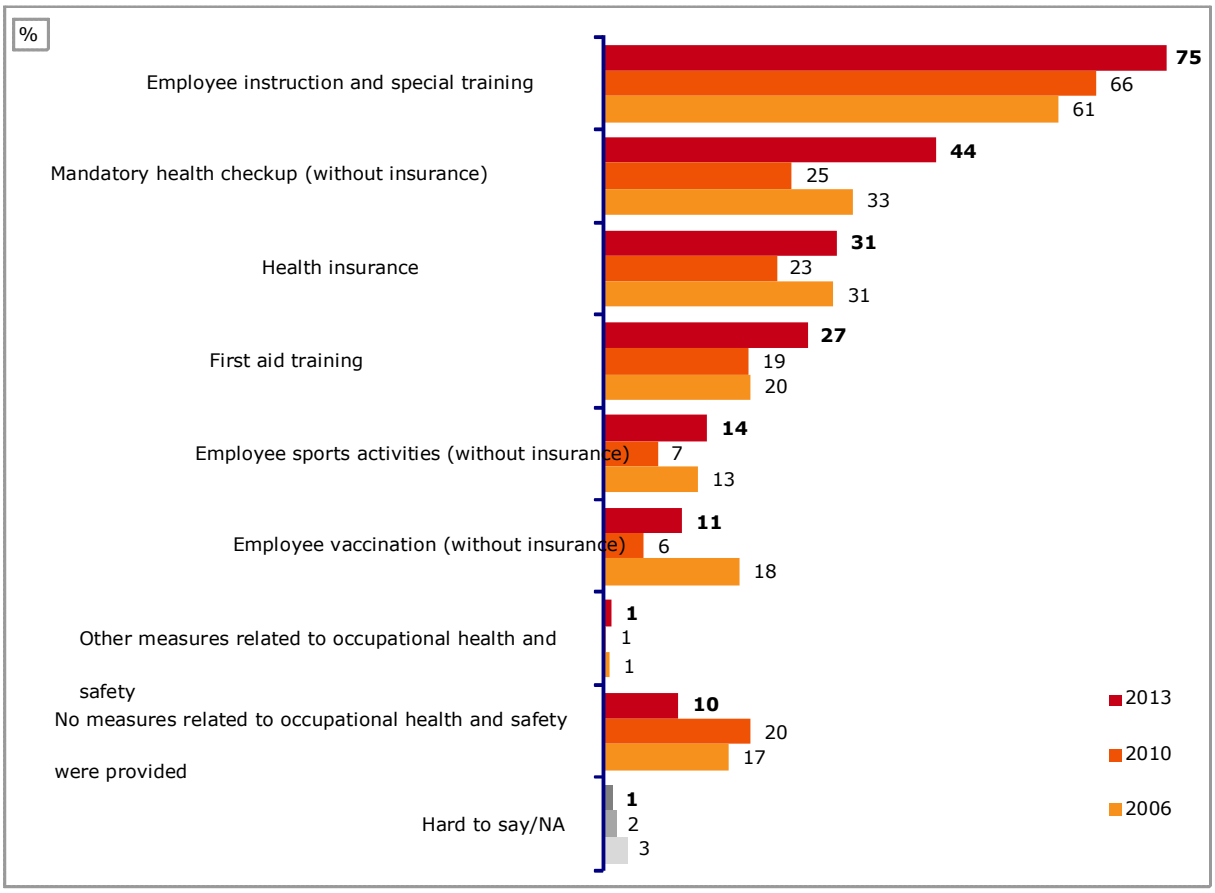
Figure 27. Financial resources invested in labour protection measures in enterprises during last year



Note: basis – all respondents, in 2006: n = 1058, in 2010: n = 1044; in 2013: n = 1044.
Source: Employers survey.

Opinion of employees. In the frames of the Study employees were asked, what occupational health and safety measures have their employers provided during the last year. Survey shows that in 2013, similarly as within the survey of 2010 the most popular answers were related to instruction and special training (in 2013 – 74.8%, in 2010 – 65.9%), compulsory health examinations (in 2013 – 44.4%, in 2010 – 25.2%) and health insurance (in 2013 – 31.0%, in 2010 – 23.2%), but in 2006 – work safety, health safety instruction and training (see Figure 28 for more details, specific issues are described in thematic Annexes, for example "Occupational health and safety requirements regarding safety signs", "Personal protective equipment"). Most of the provided has increased in dynamics, except for employee vaccination, and this can be generally assessed as a positive tendency.

Figure 28. Opinion of employees on equipment provided by the employers in different fields of labour protection



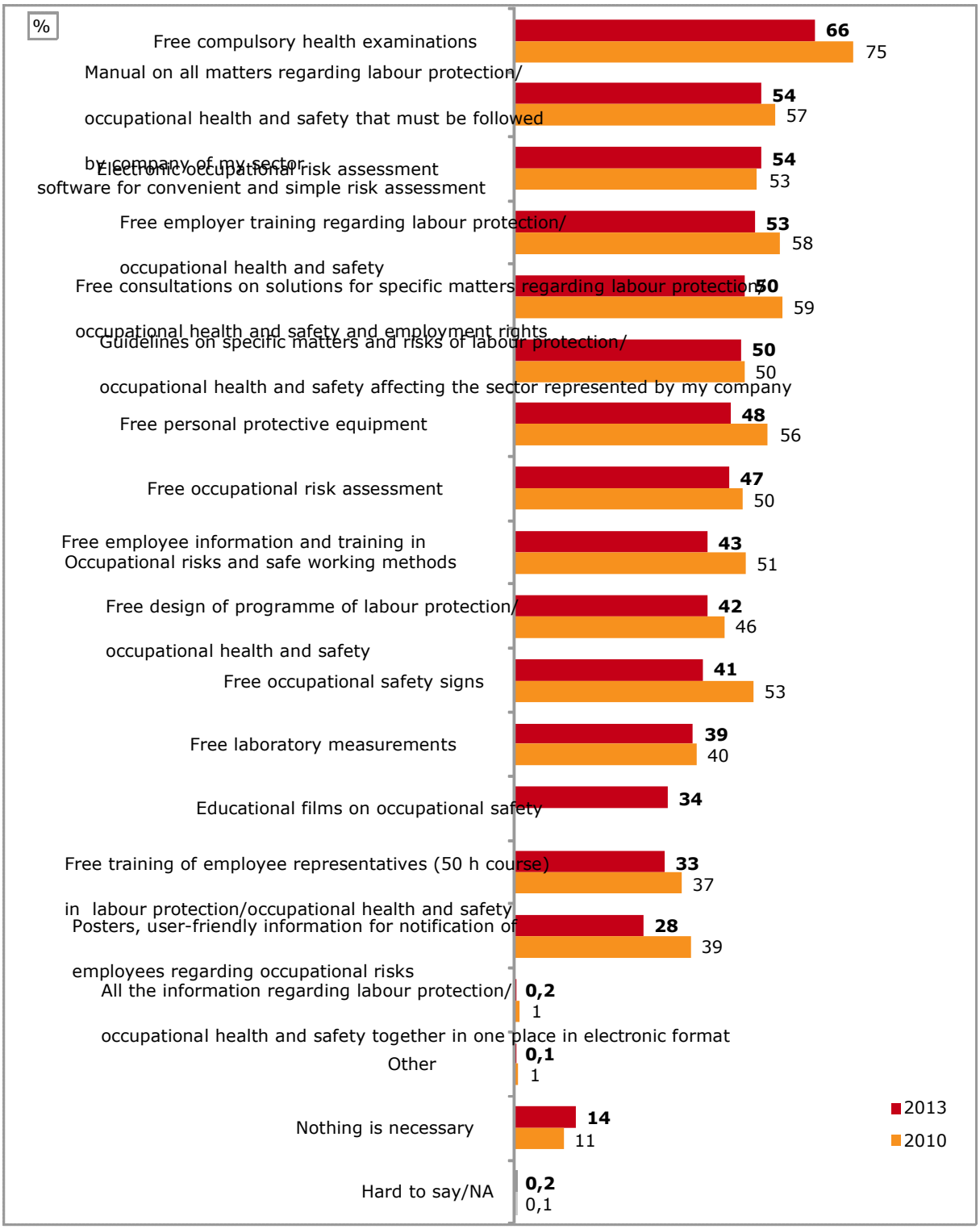
Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

3.3.3 Desirable free support regarding occupational health and safety

In order to determine what kind of support would the employers like to obtain in solution of occupational health and safety measures both employers and labour protection/occupational health and safety specialists were asked to assess necessity for such a support. This would allow planning of public support for the companies and promote introduction of legislation requirements.

Opinion of employers. During the survey employers were offered more than 10 different possible kinds of free support necessity of which had to be assessed. Measure mentioned by the employers most frequently in 2013 is free compulsory health examinations (in 2013 – 66.1%, in 2010 – 74.6%), which is indicated much more frequently than any other measure, but only 13.5% of employers (in 2010 – 10.9%) indicated that they needed no support at all. It must be noted that all kinds of free support mentioned within the study have been mentioned less frequently than in 2010, except for the electronic occupational risk assessment software mentioned more frequently by 1%. Possibly, such results of survey are related to the fact that free handouts are already available, as well as informative seminaries, information is freely available on the internet, and also the companies have larger amount of financial resources to provide arrangement of occupational health and safety issues in compliance with legislation requirements. However, data of the study shows that more than a half of the employers have no obstacles regarding implementation of the occupational health and safety measures; however, they are still implemented insufficiently. Furthermore, employers wish to carry out occupational risk assessment in maximally simplified manner, using special computer software already available for the assessment of working environment of the offices (for example, www.oira.lv), but, supposedly, creation of such kind of supplementary aid will be difficult in production processes of different sectors, because it takes individual approach, and – frequently – experience of several experts. See Figure 29 for other desirable measures to be implemented.

Figure 29. Desirable free support regarding occupational health and safety



Note: basis – all respondents, in 2010: n = 1044; in 2013: n = 1044.
Source: Employers survey.

Fact that largest companies much more frequently would like to have almost all measures provided for free also in 2013 should be mentioned as a significant aspect – this means a tendency that along with the increase of employees in the companies grows their wish to receive free services in the field of

occupational health and safety (for example, in 2013 free laboratory measurements among companies with 1–10 employees it was indicated by 34.7% of respondents, with 11–49 employees – 62.8%, with 50–249 employees – 77.1%, with 250 and more employees – 76.6%; in 2010 free laboratory measurements among companies with 1–10 employees were indicated by 36.2% of respondents, companies with 11–49 employees – 58.8%, with 50–249 employees – 73.9%, with 250 and more employees – 73.7%). In 2013 as a similar example can be mentioned indicators showing that heads of non-governmental organizations have indicated free assistance less frequently (for example, in 2013 free occupational safety signs were indicated by 39.5% of representatives of non-governmental organizations, 69.2% of representatives of private sector and 59.1% of representatives of public sector; in 2010 – by 28.3% of representatives of non-governmental organizations 53.7% of representatives of private sector and 70.6% of representatives of public sector). This shows that actually free assistance is expected by the companies already complying with the legal requirements in occupational health and safety being aware that these measures are related both with investments of time and financial resources. Therefore the researchers would like to stress that any kind of free support that would be aimed at companies of risk groups both as preparation, and distribution of information could significantly improve situation in the field of occupational health and safety in the respective companies. For example, good quality preparation of manual (guidelines, practice standards etc.) for the sectors, where the situation is not quite good, could significantly improve situation in the field of occupational health and safety in the respective sectors. Since a number of the most dangerous sectors already have prepared a huge number of different informative materials, larger accent should be set on wider promotion of the ready materials, because the surveys conducted during the training seminars of occupational health and safety specialists showed that large part (over 50%) of the respondents did not know, for example, about practice standards of different sectors or they had not used any. Wider promotion would be necessary also for use of different available free supplementary aid, because, considering the previous experience, for example, number of users of www.oira.lv has reached over 350 companies (on 15.11.2013 – 355 companies) without special advertisement – so, number of users can be significantly increased with comparatively small informative campaign.

3.3.4 Effects of illegal economy on situation regarding occupational health and safety in enterprises

Results of the Study "Work conditions and risks in Latvia, 2005-2007" already showed that significant problems regarding complying with occupational health and safety legislation was in companies, where the salary is paid in envelopes (especially in companies, where the salary is paid in envelopes every month). Thus already during the first study evidence was obtained showing that companies failing to comply any single legislative act, mostly fail to comply also some other ones. Due to this reason research group indicated that VDI should cooperate more actively with the State Revenue Service and other controlling authorities to indentify and inspect the companies of the illegal employment risk group. Whereas in 2010 the Study was carried out in situation, when illegal economy had become very active in Latvia, therefore a special chapter of the study publication was dedicated to that issue (in this chapter study data were analyzed depending on whether the salary is paid in envelope and at what regularity). Also the data if the survey of 2013 indicate that situation in relation to the envelope wages has not improved, and this could be explained with the *economic post-crisis* conditions, when employers try to economize at the expense of taxes, social guarantees of employees etc. Similarly as in 2010, also the employees surveys carried out within the Study of 2013 show that employees receiving salary in envelope are less satisfied with their current job (satisfaction with job

on average in Latvia: in 2013 – 82.5%, in 2010 – 73.9% are satisfied; satisfaction with job among employees receiving salary only in envelope – 64.5% (in 2010 – 49.1%, in 2006 – 65,3% were satisfied with job), and that, in comparison with the data of previous studies, shows on reduction of satisfaction with their current job.

Almost every reason among the dissatisfied employees has been mentioned more frequently than on average in Latvia, for example, "*No sense of stability, security, salary payments are delayed*" was mentioned by 30.6% of respondents in 2013, in 2010 – 58.1% (on average in Latvia: in 2013 – 17.7%, in 2010 – 42.2%), "*no training opportunities, (courses)"* in 2013 – 7.2%, in 2010 – 22.4% (on average in Latvia: in 2013 – 4.8%, in 2010 – 22.4%), "*low salary*" *in* 2013 – 72.5%, in 2010 – 85.8% (on average in Latvia: in 2013 – 75.9%, in 2010 – 74.5%), "*no social guarantees (employer does not pay taxes)"* – 5.0% (on average in Latvia: in 2013 – 4.8%) and other. Whereas it is obvious in dynamics that in general there is significantly lower number of respondents having mentioned these reasons for dissatisfaction in 2013 in comparison with 2010, but in 2006 reasons for the dissatisfaction with the current job most frequently mentioned by the employees receiving envelope wage every month were: "*No sense of stability, security, salary payments are delayed*" (24.4)%, which is less frequently than in the surveys of 2010 and 2013 and "*no social guarantees (employer does not pay taxes)"* – 14.3%, which, in its turn, was more frequently than in the surveys of 2010 and 2013.

Analyzing assessment of employees in 2013 regarding extent of compliance with occupational health and safety requirements in the company (in 10 point scale, where 1 means "Does not comply at all" and 10 – "Comply fully"), the lowest assessment is among the respondents, in whose companies salary is paid in envelope every month (in 2013: in companies where salary is paid in envelope every month – 6.8, sometimes – 7.5, never – 8.6; in 2010: every month – 6.6, sometimes – 7.1, never – 8.6; in 2006: every month – 6.8, sometimes – 7.5, never – 8.4). Furthermore, analyzing data in dynamics slight improvement is observed, which is similar to situation in 2006; in addition, in companies where salary is never paid in envelopes situation has remained the same – the highest assessment, as in 2010, is slightly higher than in 2006.

Results of the Study show that in companies, where salary is paid in envelopes occupational risk assessment takes place less frequently, but in case, if it takes place at all, the assessment is much more formal. So, for example, there was on average 10.5% of employees indicating that no such assessment has been carried out in their workplaces in 2013 in Latvia (in 2010 – 11.2%), additionally 52.9% (in 2010 – 59.2%) indicated that they have not participated in such measures (it is impossible to detect in such cases, whether risk assessment has been carried out in the company). Analysis of the respondents having mentioned envelope wages leads to conclusion that no occupational risk assessment has been carried out in 23.9% of those receiving salary in envelope every month in 2013 (in 2010 – 27.3%). Whereas, participation in the risk assessment process was mentioned by 25.6% of employees on average in Latvia in 2013 (in 2010 – 19.2%), but 13.4% (in 2010 – 6.0%) of those receiving salary in envelope every month.

In order to prevent workplace accidents and occupational diseases, educated and knowledgeable employees form one of the most important factors. Companies where salaries are paid in envelopes should be mentioned as companies of the risk group also in regard of employee education and information (see Table 9).

Table 9. Number of employees informed on various occupational health and safety issues during the last year

Topic	Year	Salary in envelope		
		Never (%)	Sometimes (%)	Every month (%)
Occupational risk factors in the employee (chemical, physical, ergonomic (awkward postures, lifting of heavy objects), psychosocial, injury risk factors and other)	2006	58.9	54.3	43.0
	2010	55.0	42.8	35.7
	2013	70.0	72.6	46.3
Effects of risk factors (working environment) on health and necessary health examinations	2006	63.7	56.4	42.7
	2010	60.9	51.0	37.1
	2013	76.4	63.0	54.7
Useful personal protective means (e.g., earplugs, gloves, helmet, respirator and other)	2006	53.0	56.1	51.4
	2010	48.1	43.3	46.9
	2013	61.1	61.1	52.2
Safe working methods (e.g., work with equipment (routers, lathes))	2006	40.3	43.7	44.4
	2010	36.5	33.6	29.2
	2013	52.8	52.7	48.1
Situations, when the work may not be commenced and when the work must be stopped	2006	61.1	59.4	50.2
	2010	62.0	56.1	44.2
	2013	73.9	76.2	54.3
Action in emergency situation (e.g., in case of fire)	2006	82.1	72.1	63.1
	2010	89.0	81.9	59.5
	2013	90.7	85.4	63.5
Occupational safety instructions (signature confirming familiarization)	2006	88.8	74.4	68.6
	2010	91.3	87.0	74.0
	2013	94.9	87.8	77.5

Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013 n = 2383.
Source: Employees survey.

Analyzing the issues regarding information of employees in dynamics one may conclude that share of the instructed employees in companies where salary is paid in envelopes has increased similarly as in the companies where salary is not paid in envelopes. Furthermore, analyzing the topics regarding which the information has been provided, one may conclude that instruction has been more objective and not as formal anymore, because number of respondents has grown regarding all topics included in the occupational safety instruction (see Table 9); the number has become higher than in the survey results of previous years, however, in companies where salary is paid in envelopes every month this indicator is lower than in companies where salary is never paid in envelopes; in addition, this indicator is also lower than the average indicators in Latvia.

Tendency still remains that not all of the respondents receiving salary in envelope every month and having been instructed in occupational health and safety have been informed on safe working methods, action in emergency situation and other, but this proportion has improved in comparison

with the studies of previous years. This indicates in general that employers' attitude towards the occupational health and safety issues is not that formal anymore.

Employees survey in 2013 show that in companies where salaries are paid in envelopes situation improvement can be observed in comparison with 2010, because:

- work intensity and pace has decreased just a little more frequently than on average in Latvia (in 2013: 41.9% of companies where salaries are paid in envelopes every month versus 39.0% on average in Latvia; in 2010: 59.2% of companies where salaries are paid in envelopes every month versus 36.0% on average in Latvia);
- volume of work is nearly the same as on average in Latvia (in 2013: 47.4% versus 44.5% on average in Latvia; in 2010: 67.4% versus 40.5% on average in Latvia);
- number of respondents indicating on reduction in regard of training opportunities provided by the employer has decreased (in 2013: 12.2% versus 17.5% on average in Latvia; in 2010: 23.2% versus 9.3% on average in Latvia);
- less frequently than on average in Latvia respondents have mentioned that support from their immediate superiors has reduced (in 2013 – 18.8% versus 20.9% on average in Latvia; in 2010 – 27.7% versus 8.3% on average in Latvia).

Various conflicts can be observed more frequently also in 2013 – disagreements among managers (immediate superiors, top management, employees) and employees, conflicts among employees, conflicts among employee groups, conflicts with customers, internal competition among employees, as well as psychological coercion or threats (see Table 10).

Table 10. Number of employees indicating on previous conflicts

Type of conflict	Year	Salary in envelope		
		Never (%)	Sometimes (%)	Every month (%)
Disagreements among managers (immediate superiors, top management, employees) and employees	**2010**	50.0	68.2	70.1
	2013	53.0	71.4	63.4
Conflicts among employees	**2010**	34.6	54.4	52.3
	2013	45.4	50.3	57.4
Conflicts among employee groups	**2010**	18.1	27.8	32.6
	2013	26.6	27.5	35.0
Conflicts with customers	**2010**	45.8	50.8	60.0
	2013	42.2	47.3	40.7
Internal competition among employees	**2010**	26.0	38.0	40.9
	2013	38.1	37.2	42.7
Psychological coercion or threats	**2013**	20.3	17.1	28.0

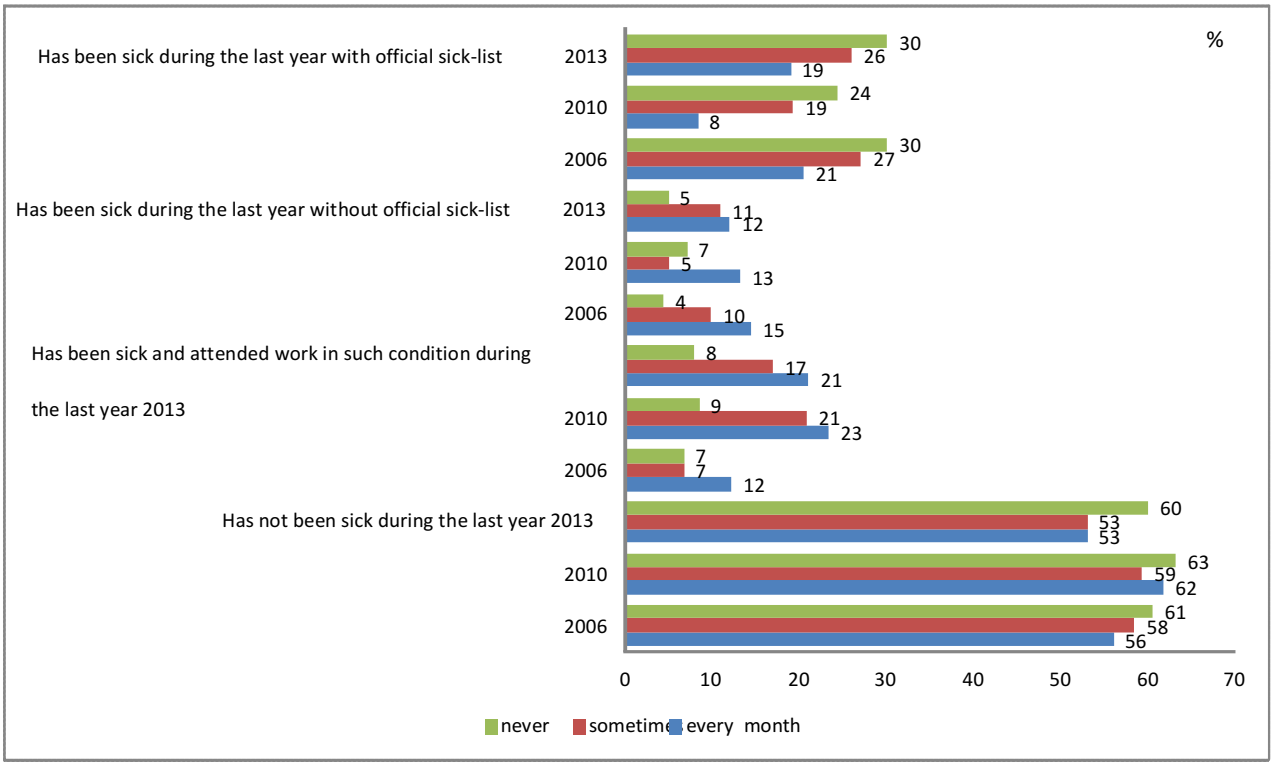
Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

In comparison with 2006 the employees receiving salary in envelope find written contract of employment with the employer less important (in 2013 – 80.1%, in 2010 – 73.6%, in 2006 – 78.1%).

At the same time, if the employees receive salary in envelope, they use their rights for annual leave less frequently, and in comparison with 2010 this situation has slightly deteriorated in 2013 and is similar as in 2006 – 33.0% of the respondents receiving salary in envelope every month have not used their annual leave during the last year (in 2006 – 31.9%, in 2010 – 38.2%). In their turn half of the number –17.7% of the respondents sometimes receiving salary in envelope have not used their annual leave (in 2010 – 21.6%, in 2006 – 15.7%), and only 7,5% of the employees never receiving salary in envelope have not used their annual leave (in 2006 – 10.7%, in 2010 – 11.0%). Some of the reasons were mentioned significantly more frequently than on average in Latvia, for example, "*I did not want to use my annual leave myself*" – in 42.0% of the companies where salary is paid in envelope every month versus 36.2% on average in Latvia, *"employer did not allowed to use annual leave"* – 26.7% (in 2010 – 20.6%), of the companies where salary is paid in envelope every month versus 16.9% (in 2010 – 13.6%) on average in Latvia, but the reason *"employer does not pay annual leave offering unpaid one instead"* was mentioned considerably less frequently – 2.4% (in 2010 – 20.6%) of the companies where salary is paid in envelope every month versus 4.3% (in 2010 – 4.5%) on average in Latvia.

Fact that in comparison of data in dynamics with 2010 and 2006 number of employees who have attended work being sick more frequently (especially – employees receiving salary in envelope) should be mentioned as a very negative trend (see Figure 30).

Figure 30. Action of employees in sickness period during the last year depending on envelope wage



Note: basis – all respondents, in 2006: n = 2455; in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

Analysis of reasons, why employees have attended work while being sick leads to significantly different structure of reasons. For example, in companies where salary is not paid in envelope the following reasons were mentioned most frequently in 2013: "*due to salary, remuneration, financially unfavourable, due to bonuses*" – 38.4%, "*there was no replacement*" (in 2013 – 23.5%, in 2010 – 41.3%), but in companies where salary is paid in envelopes the mentioned reasons also were "*due to salary, remuneration, financially unfavourable, due to bonuses*" (companies where salary is paid in envelopes every month: in 2013 – 56.6%, in 2010 – 56.7%, companies where salary is sometimes paid in envelopes: in 2013 – 28.4%, in 2010 – 54.8%), employee "*was not so seriously ill, he/she was able to perform his/her work*" (companies where salary is paid in envelopes every month: in 2013 – 21.1%, companies where salary is sometimes paid in envelopes: in 2013 – 19.3%) and "*there was no replacement*" (companies where salary is paid in envelopes every month: in 2013 – 9.3%, companies where salary is sometimes paid in envelopes: in 2013 – 31.4%). However, while in 2010 employees were "*afraid to lose their job*" much more frequently in companies where salary is paid in envelopes every month (25.8% versus 10.9% on average in Latvia), then no such a trend can be observed in 2013 (4.8% versus 5.4% on average in Latvia).

Analysis of health disorders, in the opinion of employees, caused by the harmful factors of working environment (for example, noise, vibration, dust, chemical substances and other), employees receiving salary in envelope every month have mentioned such disorders more frequently (in 2013 – 33.9%, in 2010 – 23.3%, in 2006 – 27.5%,) than on average in Latvia (in 2013 – 20.7%, in 2010 – 16.5%, in 2006 – 21.3%). It is necessary to note additionally that employees from companies paying salary in envelope are also more frequently obliged to stay in premises where somebody smokes, thus they are more exposed to the risk of diseases caused by the passive smoking (for example, cardiovascular diseases, high blood pressure, lung cancer), as well as they are more affected by such occupational risk factors as dust (passive smoking substantially affects condition of respiratory mucuous membranes – the better is the condition the easier is discharge of the dust from the body (in companies where salary is paid in envelope, just 58.5% (in 2010 – 55%) of respondents are not exposed to passive smoking at all, but in companies where salary is never paid in envelope number of such respondents is 78.1% (in 2010 – 83.5%)). Dynamics shows that slightly higher number of employees receiving salary in envelope is not exposed to passive smoking, but in companies where salary is never paid in envelope the number of employees exposed to passive smoking has grown in comparison with 2010.

Also, the workplace accidents during the last three years have occurred more frequently in companies where salary is paid in envelope (in 2013 – 23.2% versus 13.6% on average in Latvia; in 2010 – 23.7% versus 8.0% on average in Latvia) – such survey results indicate on fact that health disorders develop significantly more frequently to the abovementioned employee groups, and employees of these groups suffer in workplace accidents more frequently. In addition, 41.4% (in 2010 – 42.9%) of employees representing the companies paying envelope wages have indicated that accidents have not been reported to the VDI, and this indicator is much higher than on average in Latvia (in 2013 – 22.0%; in 2010 – 28.8%). However, situation in dynamics is the same as in 2010 and it has improved in comparison with 2006, when 61.5% of the respondents of this risk group indicated on non-reporting.

Generally results of the Study show that the companies where salary is at least partly paid in envelope still form part of a special risk group not only in the field of legal labour relations, but also in occupational health and safety, thus such companies should be set as priority.

3.3.5 Effects of membership of companies in different organizations on situation in occupational health and safety in companies

Survey of 2013 also indicates that following coherence remains – situation in the field of occupational health and safety in companies significantly depends on whether the respective company is socially active, i.e., whether the company is a member of any employers' organization.

Most important measures to be carried out in the field of occupational health and safety and frequency of these measures in various groups of companies are summarized in Table 11.

Table 11. Various occupational health and safety measures carried out in companies depending on membership in employers' organizations

Occupational health and safety measure	Year	Companies that are not members of employers' organizations	Companies – members of LDDK	Companies – members of the Chamber of Commerce and Industry	Companies – members of the sector associations
Occupational risk assessment during the last year (full and partial)	2010	43.8%	74.3%	56.0%	63.4%
	2013	44.7%	68.4%	**	**
Programme of measures in the field of occupational health and safety	2010	63.8%	94.0%	84.4%	65.2%
	2013	59.4%	73.1%	**	**
Compulsory health examinations	2010	49.9%	87.1%	72.4%	62.4%
	2013	38.2%	57.0%	**	**
Arrangement of safety signs	2010	43.7%	56.0%	41.7%	46.6%
	2013	36.7%	43.6%	**	**
Purchase and maintenance of fire-fighting equipment	2010	64.9%	89.5%	64.9%	74.3%
	2013	59.1%	78.4%	**	**

Note: basis – all respondents, in 2010: n = 1040; in 2013: n = 1044.

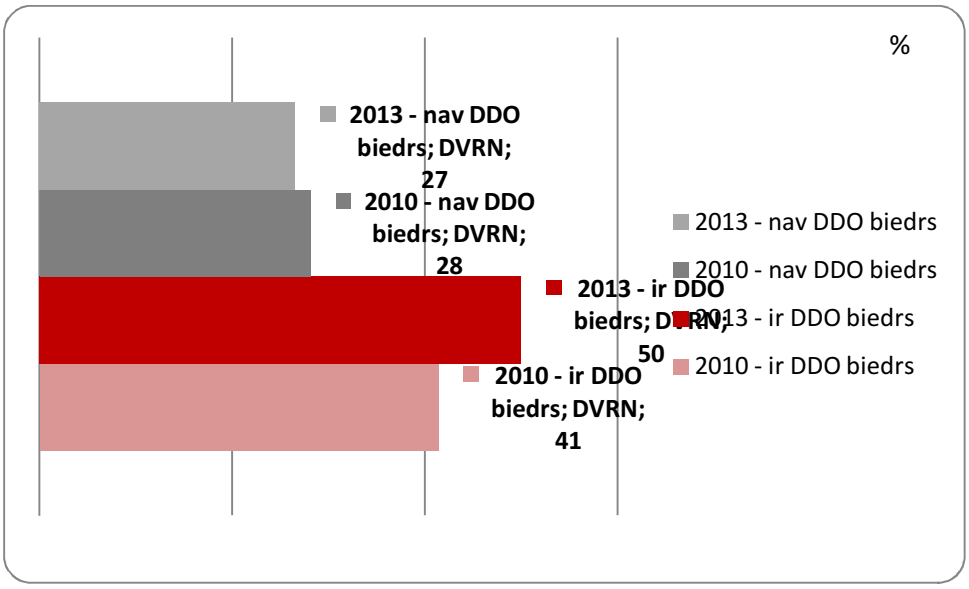
* Data of 2006 are not available.

** Data of the study of 2012 are not available.

Source – Employers survey.

As it is obvious from Table 11, also in 2013 in all cases labour protection measures have been carried out more frequently in companies that are members of LDDK. Detailed analysis of results leads to conclusion that measures in "organized" companies are organized at better quality. For example, programme of measures must be prepared after occupational risk assessment in companies in order to prevent the identified risks and incompliance with the legislation requirements. According to experts' opinion, there are no such a company where no labour protection measures should be taken, therefore preparation of the programme of preventive measures show at what extent of quality the occupational risk assessment has been carried out. All the abovementioned data are shown in Figure 31.

Figure 31. Number of companies where programme of preventive labour protection measures has been prepared after occupational risk assessment



Nav DDO biedrs	Is not a member of employers' organization
Nav DDO biedrs	Is not a member of employers' organization
Ir DDO biedrs	Is a member of employers' organization
Ir DDO biedrs	Is a member of employers' organization

Note: basis – all respondents, in 2010, n = 1040, in 2013, n = 1044.

Source – Employers survey.

DDO – employers' organization

LDDK – Employers' Confederation of Latvia

TRK – Chamber of Commerce and Industry

As it is obvious, in comparison with 2010 situation in 2013 is slightly better in companies – members of LDDK, but in the companies that are not members of LDDK situation has remained the same in relation to the design of the programme of preventive labour protection measures on the basis of occupational risk assessment results. It must be noted that in companies – members of LDDK in comparison with the companies that are not members of employers' organizations larger increase of difference can be observed in dynamics, i.e., situation in LDDK improves more rapidly. This could be possibly explained with the fact that LDDK is the only employers' organization of national level representing employers' interests regarding issues of employment rights and occupational health and safety and providing consultations in these fields for its members. In addition, all companies have opportunity to use various kind of free assistance in the field of occupational health and safety currently available comparatively widely in Latvia, for example, free LDDK consultations regarding occupational health and safety and legal labour relations have been used by 10.5% (in 2010 – 7.4%) of the companies that are not members of LDDK. There is especially essential difference among the companies that are members of LDDK in 2013 – the abovementioned indicator is 21.6% among these companies (in 2010 – 33.7%), and this possibly could be explained with the end of implementation of the ESF project *"De minimis"* implemented by the LDDK during the period between 2008 and 2010,

including free occupational risk factor assessment and free laboratory measurements. Similar situation can be observed also regarding free occupational risk assessment performed in 2008 – 2010 by the partnership of six competent authorities hired by the LDDK (LLC "Inspecta Prevention", LLC "Grif", LLC "Komin", LLC PSI "Darba medicīna", LLC "Darba aizsardzības institūts", LLC "Leilands un Putnis"). In cases when the respective companies are not members of any organization, this assistance was used only in 6.1% (in 2010 – 1.1%) of all cases, but, if the company is a member of the Employers' Confederation of Latvia, this indicator was 16.0% (in 2010 – 18.8%) of all cases, and this shows that companies are more aware of various opportunities to obtain various kind of free assistance for the development of their business. In 2013 the employers have more frequently mentioned they would like to have free software for occupational risk assessment, but they do not use extensively the available free supplementary aid – www.darbariski.lv, www.oira.lv. This confirms the abovementioned that, possibly, additional informative measures are necessary, as well as training for the everyday application of this supplementary aid.

3.4 Effects of non-compliance with occupational health and safety requirements

Traditionally workplace accidents are understood speaking about consequences of non-compliance with occupational health and safety requirements, because the consequences are obvious and instant, however, it must be remembered that largest percentage of diseases and fatalities related to working environment cause different kind of consequences – occupational diseases and aggravation of the course of already prevalent diseases (so called occupational diseases). Similarly, talking about failure to comply with occupational health and safety requirements such aspects as reduction of working ability and direct and indirect costs in case of occupational diseases and in situations of workplace accident etc. are mentioned less frequently.

3.4.1 Workplace accidents

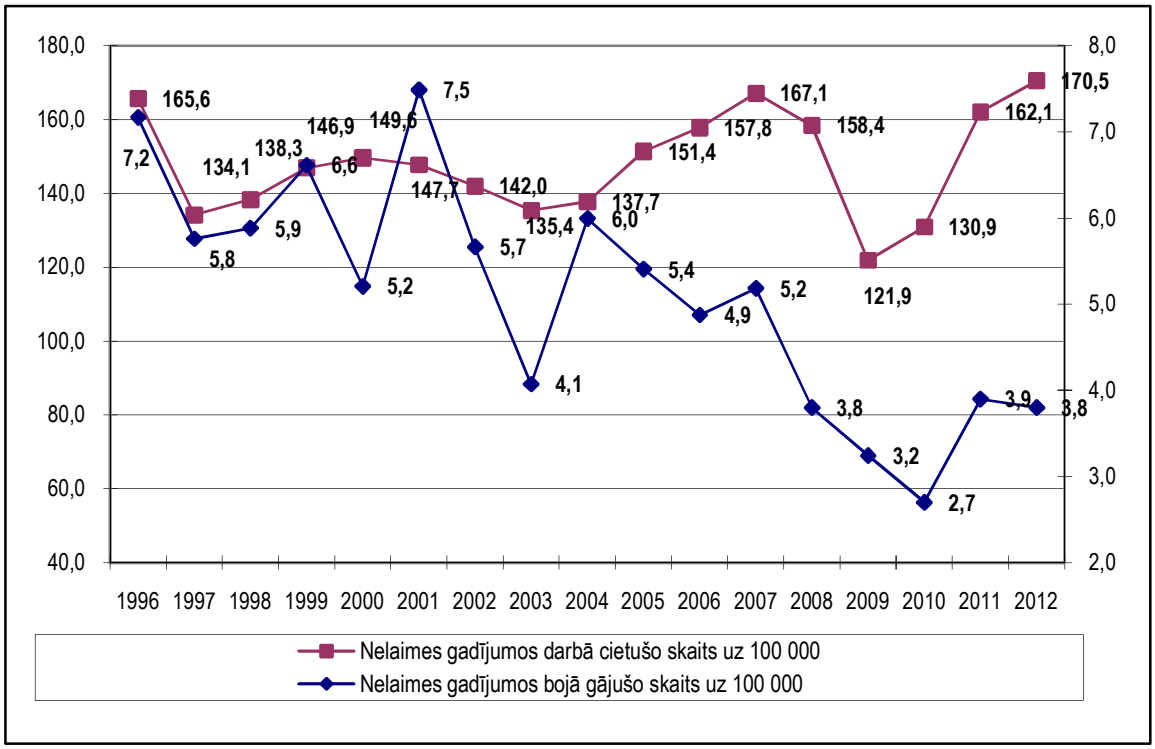
According to the Law On Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases (adopted on 02.11.1995, in force as of 01.01.1997) the term "workplace accidents" in Latvia is defined as follows:

> *Workplace accident is harm caused to the health of the insured person or the death of the insured person, if the cause of such is an extraordinary incident, which has occurred within one working day (shift) during the performance of work duties, as well as while acting to save any person or property and to prevent a threat of danger to such.*

Workplace accidents should be investigates and registered in compliance with the Regulations of the Cabinet of Ministers No. 950 "Procedures for Investigation and Registration of Accidents at Work" (adopted on 25.08.2009).

The data on workplace accidents provided by the State Labour Inspectorate were recalculated per 100,000 employees. This allows analyzing data among different sectors and States, both in comparison with other countries as well as in dynamics (see Figure 32).

Figure 32. People affected by workplace accidents between 1996 and 2012 (per 100,000 employees)



Nelaimes gadījumos darbā cietušo skaits uz 100 000	People suffered in workplace accidents per 100,000 employees
Nelaimes gadījumos darbā bojā gājušo skaits uz 100 000	People killed during workplace accidents per 100,000 employees

Source: Number of workplace accidents – VDI; number of employees – Central Statistical Bureau.

Analysis of information on people killed during workplace accidents in dynamics per 100,000 employees (see Figure 32) shows that the total rate of people suffered in workplace accidents has been relatively stable from 1997 to 2004, when the rate reached 137.7 accidents per 100,000 employees. This rate gradually increased from 2005 to 2007 reaching 167.1 accidents per 100,000 employees, but then it rapidly reduced (down to 121.9 accidents per 100,000 employees in 2009), followed by increase of the number of accidents in 2010, and in 2012 this rate reached a new maximum level – 170.5 accidents per 100,000 employees.

From 1996 the rate of fatal accidents per 100,000 employees has decreased significantly from the maximum level in 2001 (7.5 accidents per 100,000 employees) down to 2.7 accidents per 100,000 employees in 2010. In 2011 number of fatal accidents increased again, when 3.9 accidents per 100,000 employees were registered.

Comparing increase of the total rate of accidents and fatal accidents per 100,000 employees between 2010 and 2012 one must conclude that frequency of fatal accidents increased faster than total number of accidents (by 40.7% and 30.3% respectively). Such a rapid growth of total number of registered accidents could be partly related to the thematic VDI inspections in the "dangerous" sectors, reporting of employees and registration of more detailed information by employers regarding accidents, as well as legislation amendments, when new – facilitated accident registration procedure entered into force

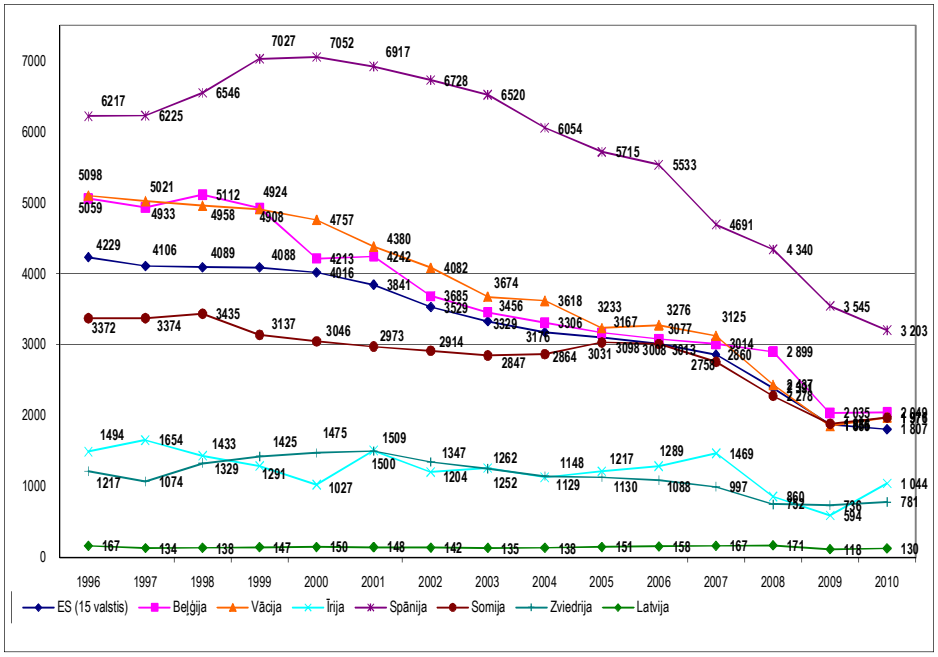
on 1 January 2010 (Regulations of the Cabinet of Ministers No. 950 "Procedures for Investigation and Registration of Accidents at Work" adopted on 25 August 2009).

Analysis of the total number of accidents and its decrease in comparison with other States within the European Union one must conclude that there is still extremely low number of registered total number of accidents (see Figure 33). Most likely, this is mainly related to the fact that not all workplace accidents are registered in Latvia, however it is hard to determine exact level of (non)registration of accidents, since various data obtained during the Study provide different information, for example:

- according to employers survey, 58.5% (in 2010 – 78.9%) of employers have reported to the State Labour Inspectorate on workplace accidents that have taken place at their enterprise (institution) during the last 3 years;
- according to employees survey, employers have reported only on 50.7% (in 2010 – 54.8%) of workplace accidents, but additional 24.9% (in 2010 – 20.8%) of respondents found it difficult to answer to this question);
- comparing indicators of Latvia with separate member states within the European Union one must conclude that, possibly, occurrence of workplace accidents in Latvia is 6 – 25 times lower (for example, total average rate of accidents per 100,000 employees in the EU 15 states (so called "old member states"), rate of the registered accidents in 2010 (last year regarding which data were available during preparation of the publication) was 1807 per 100,000 employees, while in Latvia – 130, thus – 14 times lower, whereas, for example, in Spain – 3203 accidents per 100,000 employees or 25 times higher than in Latvia and in Sweden – respectively 781 accidents per 100,000 employees or 6 times higher than in Latvia.

However, all these data show that situation regarding accident registration level not only does not improve, but even slightly deteriorate.

Figure 33. Total number of accidents per 100,000 employees in separate member states of the European Union.



ES (15 valstis)	EU (15 states)
Beļģija	Belgium
Vācija	Germany
Īrija	Ireland
Spānija	Spain
Somija	Finland
Zviedrija	Sweden
Latvija	Latvia

Source: *EUROSTAT*, data of Latvia – calculations by the authors.

See the thematic Annex "Workplace accidents" for more details.

3.4.2. Occupational diseases

According to the Law on Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases (adopted on 2 November 1995, in force as of 1 January 1997) the term "occupational disease" in Latvia is defined as follows:

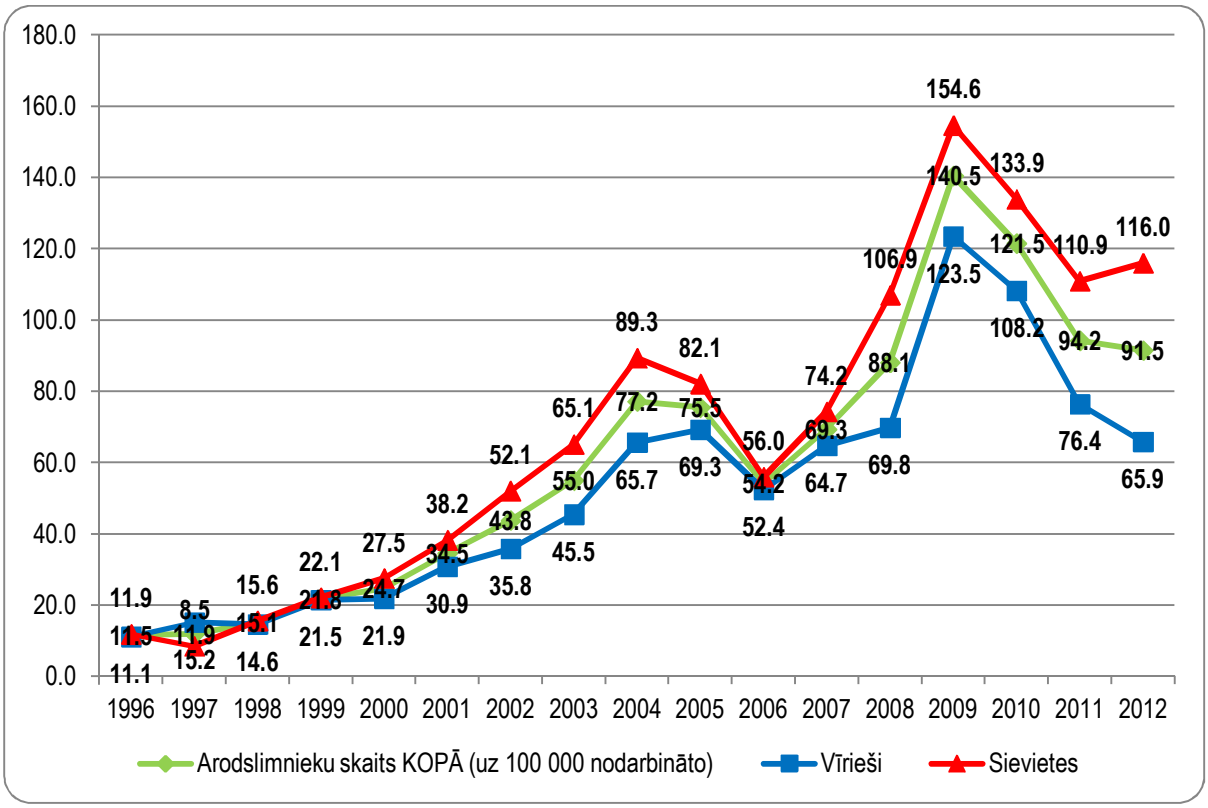
> *Occupational diseases are diseases characteristic to certain categories of employees, which are caused by physical, chemical, hygienic, biological and psychological factors in the working environment.*

Procedures for recognition and registration of occupational diseases in Latvia are defined by the Regulations of the Cabinet of Ministers No. 908 "Procedures for Investigation and Registration of Occupational Diseases" (adopted on 06.11.2006, in force as of 01.01.2007.). Only Commission of Occupational Physicians (currently the only commission operated under the Centre of Occupational and Radiation Medicine of P.Stradins Clinical University Hospital) is entitled to approve diagnosis officially. Only diseases caused by the hazardous factors of working environment included in the official list of occupational diseases (Appendix 1 of the Regulations of the Cabinet of Ministers No. 908 "Procedures for Investigation and Registration of Occupational Diseases"). In Latvia occupational diseases are diagnosed and codified according to the International Classification of Diseases (see description included in the introduction of this publication); corresponding codes are indicated in brackets after the name of a disease or a group of diseases.

For adequate comparison of occupational morbidity in Latvia with that of other States, absolute numbers of new cases of occupational diseases were recalculated per 100,000 employees.

In Latvia downward trend of the number of new cases of occupational diseases has been observed during the last three years commencing after the absolute record of occupational diseases in 2009 (see Figure 34).

Figure 34. Dynamics of occupational diseases annually registered for the first time in Latvia per 100,000 employees, 1996-2005 (per 100,000 employees)



Arodslimnieku skaits KOPĀ (uz 100,000nodarbināto)	TOTAL number of occupational patients (per 100,000 employees)
Vīrieši	Men
Sievietes	Women

Data provided by the Centre of Occupational and Radiation Medicine of P.Stradins Clinical University Hospital.

In 2009 number of occupational diseases annually registered for the first time exceeded the number of occupational patients registered in 1993 for nearly 25 times, but number of the occupational patients registered for the first time had grown for nearly 17 times in comparison with 1993. While in 2009 number of occupational diseases diagnosed in Latvia was 306.9 cases per 100,000 employees, i.e., 15 times higher than in 1996 (20.4 cases per 100,000 employees), then in 2012 morbidity rate (228.0 cases per 100,000 employees in 2012) practically returned to the level detected at the beginning of the economic crisis. This could be explained by several reasons related to both the limited capacity of the Centre of Occupational and Radiation Medicine (which had reduced some more during the last 3 years), and the fact that economic activity gradually recommences from 2010, and part of employees who lost their jobs during the crisis in 2008 – 2009 has been able to find a job and thus lost their reasons to register occupational disease (for higher social guarantees). It also must be mentioned that amendments in legislation carried out during the years of crisis have reduced the social guarantees of occupational patients, and this factor could also promote reduction of the number of registered occupational diseases. Each of the occupational patients was diagnosed on average 2.5 diseases in 2012 (the same as during the last three years). Frequency of the occupational patients registered for the first time in 2012 was 91.5 occupational patients per 100,000 employees in comparison with 140.5 occupational patients per 100,000 employees in 2009, i.e., number of occupational patients has decreased by 1,5 times during this period of time. During the previous years even up to 1996 level of occupational diseases was very low, followed by gradual increase of occupational patients reaching the first morbidity peak in 2004 (occupational patients per 100,000 employees). Rapid decrease of occupational patients and occupational diseases was observed in 2005 and 2006, followed by stable morbidity growth reaching maximum level in 2009 (140.5 occupational patients per 100,000 employees).

Analysing structure of the occupational patients by genders, different morbidity rate of different genders must be pointed out (see Figure 34) – from 1998 women are diagnosed occupational diseases more frequently than men. The largest difference in the structure of occupational diseases between the genders was reached in 2012, when number of registered occupational patients – women exceeded for the first time number of men by 1.76 times (116.0 occupational patients – women per 100,000 employees and 65.9 occupational patients – men per 100,000 employees respectively). Number of occupational diseases affecting women is generally also higher than the number of occupational diseases affecting men (see the thematic Annex regarding occupational diseases). This may be explained by higher susceptibility of women in regard of the hazardous factors of working environment, especially physical overload. Furthermore women in Latvia care for their health more carefully than men and address their physicians earlier.

According to the data of the Latvian State Register of Occupational Disease Patients and People Exposed to Ionising Radiation due to Chernobyl NPP Accident, chronic neglected forms of occupational diseases developed over many years are mainly determined in Latvia. Average age of the occupational patients expressed in full years at the moment of diagnose of occupational disease was 53 in 2012, whereas the average length of service under the hazardous factors having caused the disease – 23 years. This means that persons had spent at least half of their lifetime in the hazardous environment before the occupational disease was found. It is typical for the labour force of Latvia that employees do not address physician timely and keep working under hazardous unchanged working conditions due to fear of losing their jobs, and this gradually deteriorate their health, therefore most frequently two or more occupational diseases are detected to the occupational patients in Latvia. Most frequently

occupational diseases are detected late, at chronic stage, when treatment and rehabilitation are of low efficiency leading to disability of occupational patients and preventing them from returning to labour market. For example, in 2012 disability was recognized for 83.3% of the occupational patients registered for the first time.

Changes of the structure of the most frequently registered occupational diseases can be observed in Latvia just as worldwide (see Table 13 and Figure 34). During the last 13 years the fastest increase has been observed in morbidity of occupational diseases of musculoskeletal and connective tissue system. In terms of the number of detected occupational diseases this group of diseases takes first position since 2000. In 2012 occupational diseases of musculoskeletal and connective tissue system formed 56.2% of the total number of occupational diseases detected in that particular year. For comparison – in 1993 musculoskeletal occupational diseases formed only 10.2% of the total number of occupational diseases. The most common occupational diseases in this group are spondylosis with radiculopathy caused by overload (51.6 cases per 100,000 employees in 2012) and damage of soft tissue related to load, overload and pressure, i.e., tendinitis, tendovaginitis, bursal diseases, periarthritis and such (49.7 cases per 100,000employees in 2012). Along with all the above mentioned increase also morbidity of carpal tunnel syndrome of occupational aetiology developing due to overload of hands (48.7 cases per 100,000 employees in 2012). Whereas the number of occupational respiratory diseases more frequently detected during recent years gradually increases. Only 2.7% of all occupational diseases detected for the first time were respiratory diseases in 2012 (6.2 cases per 100,000 employees). This is related to changes in working environment – along with the improvement of situation related to the control of chemical factors and dust (as shown laboratory measurements of working environment (see Annex "Laboratory measurements") number of chemical measurements and exposition level is decreasing), their effects on health of employees decreases. However, high morbidity level regarding musculoskeletal disorders indicates on excessive physical loads.

Occupational diseases of musculoskeletal and connective tissue system are topical problem not only at Latvian, but also European level. Referring to the statistical data of 2005 regarding occupational diseases in Europe on recognized cases of occupational diseases, the most frequent occupational diseases of musculoskeletal system were elbow joint epicondylitis and palmar tenosynovitis. In 69% of all cases lateral and medial epicondylitis in Europe was detected among men. Carpal tunnel syndrome, which is classified as neurological illness, but in whose pathogenetic mechanism important role is played by overload to arms and functioning of musculoskeletal system is significantly affected by palmar innervation, covered 99% of all neurological occupational diseases in the European countries. Statistical data on regarding occupational diseases in Europe show that morbidity rate of musculoskeletal disorders in 2005 was higher among women than men (32.5 versus 26.9 cases per 100,000), and this rate has significantly grown in comparison with 2001 (14.1 versus 11.2). Distribution of diseases across the morbidity type and gender is significantly different: women more frequently suffer of carpal tunnel syndrome and palmar tenosynovitis.

Assessing rapidly growing morbidity of musculoskeletal disorders in Latvia one must conclude that preventive measures regarding musculoskeletal and connective tissue diseases should be taken in the future for purposes of health condition improvement of the employees.

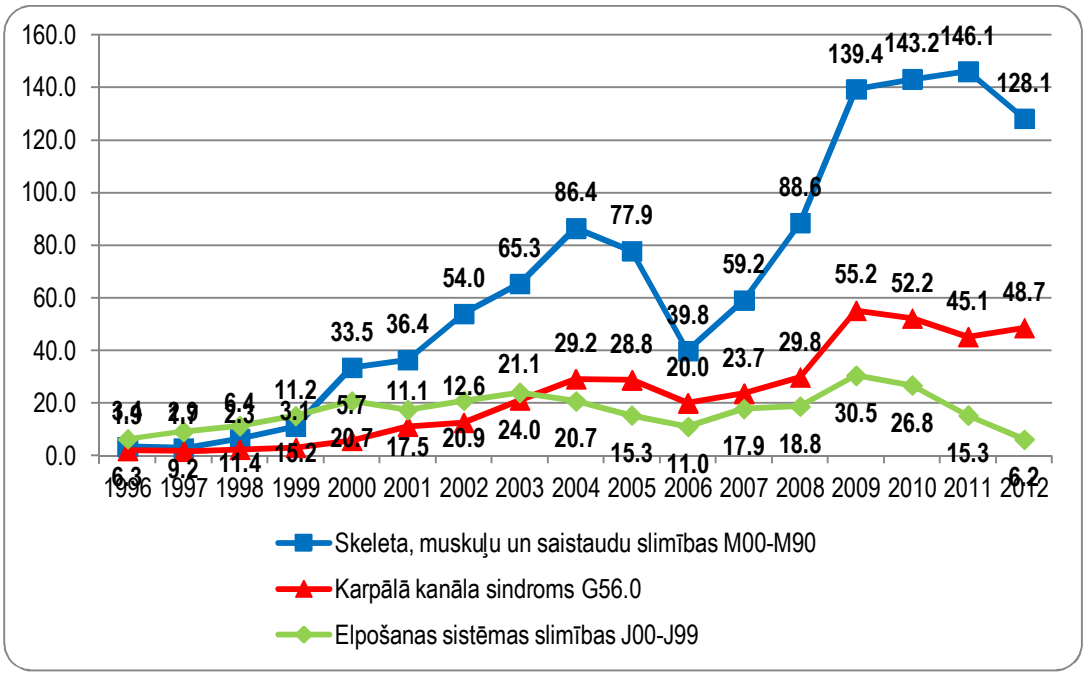
Table 13. Dynamics of the most frequent occupational diseases in 1996–2012 per 100,000 employees

	1996	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Spondylosis with radiculopathy	1.4	1.7	38.	8.0	24.2	24.7	33.6	44.8	50.1	46.9	27.7	40.8	60.8	92.1	74.2	53.3	51.6
Damage of soft tissues related to load, overload and pressure	0.7	0.5	0.4	0.9	0.6	0.9	2.0	2.3	3.6	4.1	2.0	4.6	11.5	22.7	35.2	53.7	49.7
Carpal tunnel syndrome	1.9	1.7	2.3	3.1	5.7	11.1	12.6	21.1	29.2	28.8	20.0	23.7	29.8	55.2	52.2	45.1	48.7
Impact of vibration	2.2	2.6	3.4	4.2	3.8	4.2	6.9	14.1	16.4	16.7	12.6	14.1	15.8	33.4	32.0	26.6	17.8
Occupational partial deafness	1.1	0,5	0,6	0,6	0,3	3,1	5,1	7,6	12,7	12,1	8,0	14,2	15,2	30,9	32,5	19,6	13,9
Arthrosis	0.0	0.2	0.6	0.8	4.3	7.4	13.9	16.7	27.7	25.1	8.2	10.5	13.0	17.8	20.9	18.6	7.2
Chronic inflammable upper respiratory diseases	0.3	0.1	0.1	1.5	4.1	7.5	9.0	12.5	9.6	7.2	3.4	8.4	7.7	15.8	14.7	6.6	2.1
Asthma	0.8	1.0	0.4	1.8	0.9	2.1	3.2	3.6	3.8	3.0	3.1	4.3	5.4	7.0	5.1	4.1	1.6
Chronic inflammable lung diseases	1.9	3.2	3.5	5.8	5.7	5.0	5.7	5.2	4.1	2.1	1.7	2.4	2.2	3.9	1.8	1.5	0.8
Polyneuropathy due to other toxic factors	0.2	2.9	2.5	0.7	2.4	3.6	3.4	3.2	1.8	1.3	0.3	1.0	0.3	0.1	1.4	0.3	0.0

* Includes data on the 10 most frequent occupational diseases.

Data provided by the Centre of Occupational and Radiation Medicine of P.Stradins Clinical University Hospital.

Figure 35. Frequency dynamics of the main groups of occupational diseases in Latvia 1996-2012
(per 100,000 employees)



Skeleta, muskuļu un saistaudu slimības M00-M90	Diseases of musculoskeletal and connective tissue system M00-M90
Karpālā kanāla sindroms G56.0	Carpal tunnel syndrome G56.0
Elpošanas sistēmas slimības J00-J99	Respiratory system diseases J00-J99

Note: Disease codes are indicated according to the version 10 of the International Statistical Classification of Diseases.
Source: Centre of Occupational and Radiation Medicine of P.Stradins Clinical University Hospital.

Analysis of distribution of occupational diseases in different sectors during the last 10 years leads to conclusion that the highest number of occupational diseases registered for the first time is annually diagnosed in the health and social care sector. Manufacturing takes the second position in terms of the number of occupational patients – highest number of occupational patients is registered in the sub-sector of production of food and beverages, textile industry and sub-sector of manufacture of clothing, as well as in wood processing. Third position in the structure of occupational diseases is taken by the sector of transport and communication services. Number of occupational patients registered in such a dangerous sector as construction is comparatively low, and only in 2009 and 2010 temporary and insignificant growth of morbidity was observed, followed by decrease. As of 2009 increasing number of occupational patients is observed among employees of wholesale and retail trade sectors. Fluctuations of morbidity in different sectors are affected by a number of factors, and following factors should be mentioned among the most significant ones: awareness level of the employees regarding occupational health and safety and social guarantees in case of occupational diseases, as well as the general economic situation in the sector.

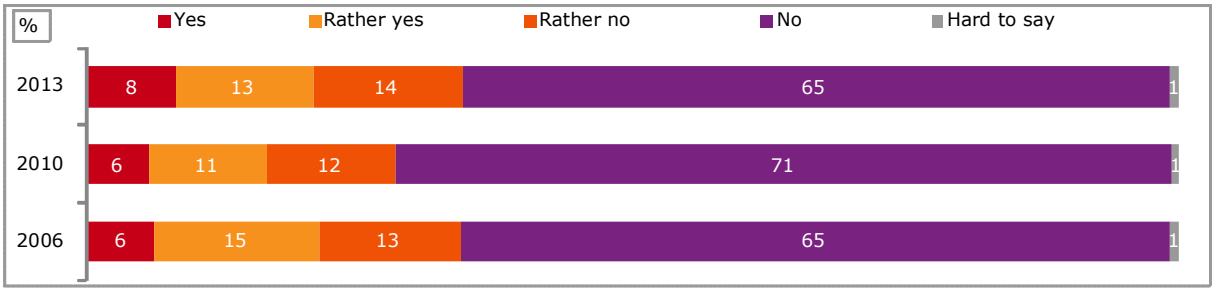
See the thematic Annex "Occupational diseases in Latvia, 1993- 2013" and thematic Annexes regarding occupational risk factors and specific sectors for additional information on nationwide statistics of occupational diseases in various sectors.

3.4.3 Work related health disorders

Occupational hazards can not only cause specific diseases, but also exacerbate chronic health disorders. The latter are not listed in Latvian legislation; therefore, employees cannot receive compensation for this type of harm. Nevertheless, occupation related disorders affect working ability of an individual and consequently also production process within the enterprise.

Within the frame of the Study employees were asked, if they suffer from any health disorders caused, in their opinion, by the occupational hazardous factors (for example, noise, vibration, dust, chemical substances etc.). Comparing with the survey of 2010 in 2013 number of the respondents considering they have health disorders caused by occupational hazardous factors has grown by 2%, whereas number of the respondents considering they do not have any kind of such disorders has decreased by 6% thus equalling with the level of 2006 (see Figure 36). This might possibly have several reasons, for example, employees are more frequently sent to the compulsory health examinations and they are more frequently provided with insurance, wherewith the medical care has become more available for the timely commencement of therapy in case of health disorders.

Figure 36. Employees suffering from health disorders caused by the harmful occupational factors



Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

Most frequently health disorders were mentioned by employees from the sector of manufacture of textile and clothing products within the survey of 2013 (in 2013 – 40.2%, in 2010 – 11.8%), manufacture of wood, products of wood and cork and of furniture (in 2013 – 27.9%, in 2006 – 26.3%), agriculture, forestry and enterprises (in 2013 – 27.8%, in 2010 – 23.9%, in 2006 – 27.8%), manufacturing enterprises (in 2013 – 26.5%, in 2010 – 30.8%, in 2006 – 30.8%), health and social care enterprises (in 2013 – 26.2%), water supply, sewerage and waste management sector (in 2013 – 23.5%, in 2010 – 6.1%), manufacture of basic metals, fabricated metal products (in 2013 – 23.1%, in 2010 – 23.1%), manufacture of paper and paper products, polygraphy (in 2013 – 22.1%, in 2010 – 13.5%), but least frequently – from construction companies (in 2013 – 18.9%, in 2010 – 23.8%) and fishing enterprises (in 2013 – 14.9%, in 2010 – 29.0%, in 2006 – 14.3%). It must be noted that mostly in all sectors where employees have mentioned health disorders their frequency has grown, especially in the sector of manufacture of textile and clothing products, as well as in health and social care sector where health disorders previously were mentioned less frequently. In the forthcoming years higher attention should be paid to education of specialists in the field of occupational health similarly as with occupational health doctors by, for example, organizing detailed seminaries and courses on distribution of occupational diseases in different sectors and on possible preventive measures, because employees having mentioned health disorders possibly related to occupational conditions represent

sectors involving chemical, ergonomic, physical and other occupational risk factors. Furthermore, it is expected that number of occupational diseases amount employees of these sectors might grow in the future. Also in the survey of 2010 health disorders were mentioned by the youngest respondents, but the tendency that along growing of the age of respondents grows also number of the respondents suffering from health disorders is more explicit than in the survey of 2006. In all previously carried out surveys health disorders were more frequently mentioned by the respondents receiving salary in envelope every month, and especially significant growth was observed exactly in 2013 (in 2006 – salary is sometimes paid in envelope – 20.7%, every month – 27.5%, never – 20.9%; in 2010 – sometimes – 16.1%, every month – 23.3%, never – 15.6%; in 2013 – sometimes – 28.5%, every month – 32.9%, never – 19.7%).

Also the survey of 2013 show tendency that respondents employed in the micro-enterprises have mentioned health disorders less frequently, but along with the increase of company's employees grows number of the respondents asserting they have health disorders caused by hazardous occupational factors (in 2006 – 1–9 employees – 17.5%, 10–49 employees – 19.8%, 50–249 employees – 22.8%, 250 and more employees – 29.7%; in 2010 – 1–10 employees – 15.7%, 11–49 employees – 19.4%, 50–249 employees – 20.7%, 250 and more employees – 20.4%; in 2013 employees – 1–10 employees – 16.5%, 11–49 employees – 19.9%, 50–249 employees – 23.7%, 250 and more employees – 26.1%).

3.4.4 Costs of occupational diseases and workplace accidents

Following costs are related to workplace accidents and occupational diseases:

- To the employer:
  - Costs directly related to the accident (e.g., salary for the affected employee, first aid costs, transportation costs, benefit for temporary work disability for the first 10 days after an accident, (according to the Law on Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases, adopted on 1 October 1997), productivity loss of involved employees, costs necessary for elimination of direct danger at the site of the accident, medicinal product costs etc.);
  - Accident investigation costs (for example, time spent for inspection of the accident site, compiling necessary documentation, drawing up a conclusion, registration of the accident at the State Labour Inspectorate, site photography etc.);
  - Damage costs (direct costs related to damaged equipment, exchange of damaged equipment, spare parts; time spent for assessment of damage and evaluation of recovery options etc.);
  - Substitution costs (time spent for evaluation of the situation – contracting of a new employee or substitution by a person already employed at the enterprise, selection of employees, communication costs, training costs, decreased productivity of new personnel etc.);
  - Lost productivity costs (interruption of production process on the day of the accident and during investigation of the accident, decreased productivity of involved personnel, repetitive instruction of personnel, foregone profit etc.);
- To the employee:

  - Recovery costs (until the diagnosis is related to work),
  - Lost income due to absenteeism or due to permanent work disability or invalidity etc.;
- To the State (from the Special Budget for workplace accidents of the State Social Insurance):
  - Temporary work disability allowance from the moment occupational disease is diagnosed until full recovery or until a conclusion of degree on permanent loss of work ability (according to the Law on Compulsory Social Insurance, adopted on 17 November 1995);
  - Temporary work disability allowance for the days following the workplace accident (according to the Law on Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases, adopted on 1 October 1997);
  - Compensation for loss of work ability, medicine or rehabilitation etc.

Costs to the employer and employee. No reliable data are available in Latvia on the amount of costs to the employer, in spite that legislation regarding workplace accident investigation provides that employers shall calculate such costs (according to clause 51 the Regulation of the Cabinet of Ministers No. 950 "Procedures for Investigation and Registration of Accidents at Work", adopted on 25 August 2009, in force as of 01.01.2010). However, the Study "Work conditions and risks in Latvia" revealed that in 2013 only 27.3% (in 2010 – only 43.0%) of employers have calculated direct costs related to workplace accidents and it means that less than a half of accidents are investigated and registered in compliance with existing legislation. Besides, it also means that there are no credible data on what are the real costs of workplace accidents to the employer.

Similar situation is in regard of the employees, since no data are available regarding the costs of occupational consequences for the persons suffered from accidents or occupational patients.

Costs to the State. In all cases of legal employment Latvian legislation establishing compulsory social insurance in respect of accidents at work and occupational diseases guarantees social security of employees. State Social Insurance Agency ensures to the employee, who has suffered from workplace accidents or an occupational disease, coverage of treatment, rehabilitation and other related costs, as well as compensation for permanent loss of working ability.

In case occupational disease is approved or a workplace accident is investigated and registered in compliance with existing legislation, employee is entitled to receive:

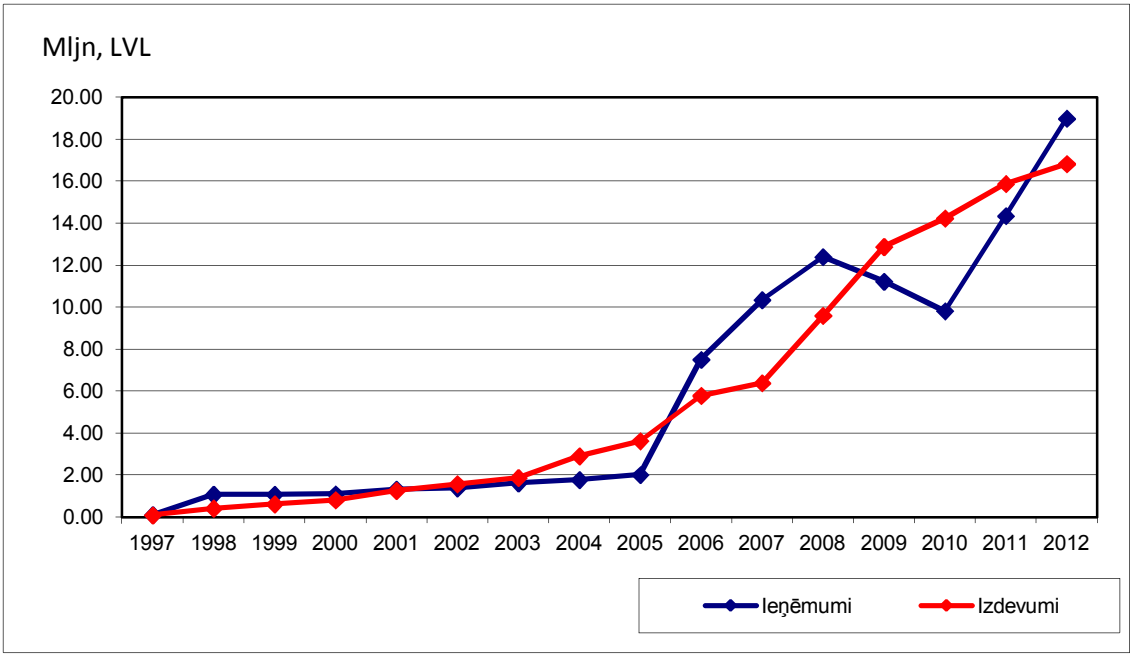
- Benefit for temporary work ability loss (for a period not exceeding 52 calendar weeks, 80% of the average monthly salary subject to insurance contributions);
- Compensation for loss of work ability (taking into account the level of lost working ability of the insured person as a result of the occupational harm and the average monthly salary subject to insurance contributions);
- Lump sum benefit – the State Social Insurance Agency compensates to the insured person additional expenses that have been incurred due to an accident at work or occupational disease, compensate expenses for prosthetic devices, disbursement for an escort, travel expenses to medical treatment institutions, expenses for the purchase of technical assistance equipment and repair of such, as well as pay for a person's medical treatment, care, medical and professional rehabilitation, if these expenditures are not covered by health care services minimum or the social assistance State programme.

If an accident at work or an occupational disease has resulted in the death of an insured person, his/her family members receive

- Compensation for the loss of a provider (to family members who are unable to work),
- A funeral benefit.

Costs that occur in case of an accident at work or an occupational disease are covered from the so-called Special budget for workplace accidents. This budget comprises contributions of employers for occupational accident and disease insurance and is managed as a special fund by the State Social Insurance Agency. Up to 31 December 2005 volume of these contributions was 0.09% of the total compulsory social security payments. Situation at the end of 2005 showed that insurance costs from the Special budget for workplace accidents (hereinafter referred to as Special budget) have grown more rapidly than contributions (see Figure 37). After increase of the premium rate the budget smoothed out, but in 2009 increase of allowances exceeded the contributions again, therefore premium rate was increased repeatedly. Currently there are small accruals in the special budget (balance at the end of 2012 was LVL 2.16 million surplus – see Figure 38).

Figure 37. Income and expenses of the Special budget for workplace accidents (million lats).

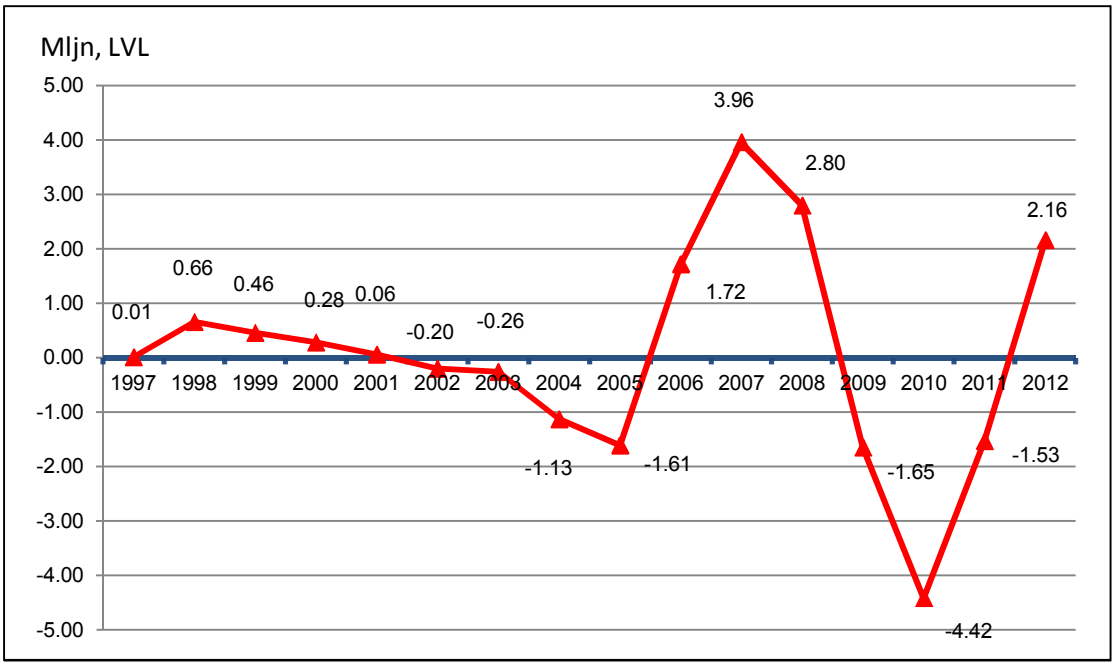


Mljn	Million
Ieņēmumi	Income
Izdevumi	Expenses

Source: VSAA.

Due to the abovementioned reason, upon calculation of the social insurance premium rates for 2006 breakdown changes of social insurance premium rates were defined, as contribution to the Special Budget for workplace accidents was raised from 0.09% to 0.25%. Rate was slightly reduced in 2008, however, as of 2009, after the negative trend related both to reduction of income and increase of expenses was observed in 2008, the rates increased again, up to 0.42% in 2013.

Figure 38. Budget surplus/deficit for the Special budget for workplace accidents, (million lats).



Source: VSAA.

Research group of the study of 2007 "Work conditions and risks in Latvia, 2005-2007" indicated that, most likely, redistribution of the contribution in favour of compulsory social insurance in respect of workplace accidents and occupational diseases would be just a short term solution with appropriate efficiency, because:

- Only a small part of individuals having suffered from accidents and with approved occupational diseases (i.e., individuals entitled to receive insurance compensation) applies in VSAA for the payments;
- Number of registered occupational accidents and diagnosed occupational diseases in Latvia is significantly lower than in other Member states of the EU (number of occupational accidents – approximately 20 times lower (data: from *EUROSTAT* for 2010), number of occupational diseases – approximately three times lower (comparison of the data provided by Centre of Occupational and Radiation Medicine with the average data of the European countries – source – World Health Organization's strategy "*Global strategy on occupational health for all: The way to health at work"*) showing that these data, most likely, does not comply with the actual situation that is supposedly worse;
- Costs of particular cases from the special budget are currently low, but along with the growth of the level of healthcare costs, as well as awareness of the individuals regarding opportunities of the application of the resources of the special budget (for example, by using them more efficiently for the professional rehabilitation more sources will be requested also for the medical and social rehabilitation etc.), costs per each particular event will keep growing; such a tendency has been observed already for the last five years.

Therefore, along with improvement of the accident investigation and diagnostics of occupational diseases, as well as raising of awareness of the residents regarding their rights and growing of

expenditures for the medicaments and medical procedures, expenses of the abovementioned special budget will grow. Indicators like growing number and volume of insurance indemnities paid for the loss of capacity for work obtained after 1 January 1997 and total amount of additional indemnities indicates on such trends. In nearest future measures have to be taken to ensure increase of budget income, because decrease of expenses is not prospective due to following reasons:

- Rapid increase of occupational disease patients during the recent years (see thematic Annex "Occupational diseases in Latvia, 1993 – 2012") having increased during recent years despite the stabilization in 2011 – 2012;
- High proportion of unregistered workplace accidents (see thematic Annex "Workplace accidents");
- Rapidly growing number of compensation for damage, if the occupational damage has occurred after 1 January 1997;
- Structure of additional expenses (proportionally rapidly growing increase of medicaments in combinations with decreasing amount of resources spent for the medical and social rehabilitation).

Supposedly due to the abovementioned reasons, expenses of the Special Budget for workplace accidents will exceed the income within the forthcoming years, and additional solutions will be necessary. Therefore research group considers that it is necessary to implement measures providing balanced budget, as well as repeatedly assess opportunity to introduce compulsory social insurance premium rates depending on risk (please, for more information refer the alternatives "Improvement of the registration level of workplace accidents and early rehabilitation of the casualties" and "Changes in social insurance in respect of workplace accidents and occupational diseases within "Work conditions and risks in Latvia, 2005–2007").

Costs from the Special Budget for workplace accidents are carried out according to the applicable legislation, however, currently the costs can be related mainly to the termination of consequences (of workplace accidents and occupational diseases) (treatment, medical expenses), and not to the preventive measures and rehabilitation (medical, social and professional rehabilitation) that would allow the employees to return to the labour market for different job. Although a good tendency has been observed during the last five years – growing number of compensations for both the medical and social rehabilitation and professional rehabilitation, yet the rehabilitation is still underestimated and insufficiently applied in the field of occupational health. Along with promotion of the use of rehabilitation growing number individuals will return to the labour market and be able to continue wholesome lives.

3.5 Social dialogue occupational health and safety and legal labour relations

3.5.1 Representatives of employees

To maintain a social dialogue between employers and employees, the latter are entitled to nominate following representatives:

- Authorised employee representatives, who represent employees regarding legal labour relations;
- Trusted representatives of employees, who represent employees regarding occupational health and safety issues;
- Trade union representatives, who represent employees regarding legal employment rights and occupational health and safety issues.

Opinion of employers. According to employers' survey, number of companies, where representatives of employees are elected, has slightly grown in comparison with data of previous surveys (in 2013 – 9.1%, in 2010 – 8.8%, in 2006 – 8.7%). Also, in comparison with previous surveys the number of companies with trade union representatives has grown (in 2013 – 4.8%, in 2010 – 2.4%, in 2006 – 3.7%), but the number of companies with trusted representatives has slightly decreased (in 2013 – 8.7%, in 2010 – 6.9%, in 2006 – 9.1%). Survey of 2013 also shows following trend – the larger is the company, the larger is the likelihood of having any kind of representatives (employee representation forms). This means that social dialogue is better developed in large enterprises. Furthermore, it must be noted that in 2013 employers of companies of any size have more frequently indicated on presence of trade union representatives, and, in comparison with previous surveys, this frequency is the highest one, especially in the large companies.

This can be possibly explained with the fact that trade union representatives offer representation and defence opportunity for the employees in various issues related with job, and this factor was especially topical during the economic crisis (see Table 13).

Table 13. Presence of authorised employee representatives, trade union representatives and trusted representatives in enterprises and institutions according to the opinion of corresponding employers.

Representatives	Number of employers (%), who have mentioned presence of employees representatives, considering number of employees in the enterprise											
	2006				2010				2013			
	1–9	10–49	50–249	250 and more	1–10	11–49	50–250	251 and more	1–10	11–49	50–250	251 and more
Authorised employee representatives	4.9	15.6	29.1	46.1	6.4	19.5	32.9	42.0	5.7	26.3	38.2	44.3
Trade union representatives	0.6	7.4	27.4	36.0	0.1	8.8	37.6	42.7	1.5	16.7	41.9	66.3

Representatives	Number of employers (%), who have mentioned presence of employees representatives, considering number of employees in the enterprise											
	2006				2010				2013			
	1–9	10–49	50–249	250 and more	1–10	11–49	50–250	251 and more	1–10	11–49	50–250	251 and more
Trusted representatives	4.6	18.8	31.9	37.8	4.0	20.2	33.4	47.3	4.6	30.2	42.4	43.3

Note: basis – all respondents, in 2006: n = 1058, in 2010 and 2013: n = 1044.
Source: employer survey.

Formal (elected) representatives probably ensure that opinion of employees is considered. It must be noted that also in the survey of 2013, in common with the survey of 2006, there was the same trend in all cases – the larger is the company, the lower is the number of employee representatives, although such a tendency was not that explicit in the survey of 2010. This could be related also with the fact that newly founded companies are established by employers who are not sufficiently educated in issues related to occupational health and safety. Also data of the survey of 2013 show that highest number of the abovementioned representatives are still present in companies founded before 1990, but downward trend can be observed in relation to newer companies founded between 1991 and 2013 (for example, no employers from companies founded during the period between 2011 and 2013 have mentioned trade union representatives).

Employers of enterprises, where trade union representatives, authorised employee representatives and/or trusted representatives exist, were asked to name issues that are discussed with these representatives. In comparison with the surveys of 2006 (18.6%) and 2010 (16.0%), number of employers who had difficulties with answering to this question has nearly doubled (31.0%). This indicates that there is no efficient social dialogue and that possibly occupational health and safety specialists/competent institutions solve these issues instead of employers, and these specialists and institutions do not present these issues to employers and do not discuss with them. Other issues employers discuss with the employees are included in Table 14.

Table 14. Range of issues employers discuss with employees

Topic	Number of respondents (%) having indicated on the respective issue		
	2006	2010	2013
Work conditions	49.2 (1)	49.9 (1)	41.5 (1)
Results of occupational risk assessment	14.4 (5)	23.8 (3)	24.1 (2)
Salary	29.4 (2)	16.9 (5)	21.0 (3)
Vacations	13.2 (6)	7.8 (7)	17.2 (4)
Employment contracts	8.7 (7)	24.5 (2)	15.9 (5)
Working hours and overtime work	23.2 (3)	22.2 (4)	14.2 (6)
Additional payments, premiums and exemptions	17.1 (4)	12.0 (6)	13.8 (7)

Topic	Number of respondents (%) having indicated on the respective issue		
	2006	**2010**	**2013**
Payment for glasses for work with computer	2.1 (12)	1.6 (10)	3.8 (8)
Different issues topical for employee	*	5.0 (8)	2.6 (9)
Other issues	4.8 (10)	1.3 (11)	1.7 (10)
Recreation and leisure time activities of employees	1.8 (13)	1.9 (9)	1.0 (11)
Job management, strategy and results	6.6 (8)	*	*
Healthcare and insurance	4.0 (11)	*	*
Individual protective equipment	5.2 (9)	*	*
Equipment, facilities, materials and tools	1.4 (14)	*	*

* Such option was not provided.

Note: basis – all respondents, in 2006: n = 1058, in 2010 and 2013: n = 1044.
Source: Employers survey.

Among the most important results of study regarding the issues to be discussed, growing number of respondents having mentioned discussion of the results of occupational risk assessment with employees should be indicated (in 2013 – 24.1%, in 2010 – 23.8%, in 2006 – 14.4%). It must be noted that number of employees having participated in risk assessment of their workplace has grown (from 19.0% in 2010 to 25.4% in 2013). However, it must be noted that discussion of issues regarding work conditions, employment contracts and working hours and overtime work has slightly decreased, but discussion of issues regarding vacations, salary and payment for glasses (for work with computer) has slightly increased.

Opinion of employees. According to the results of employees survey, number of companies with their authorised employee representatives has grown significantly (from 8.0% in 2006 to 22.3% in 2013), number of companies with trade union representatives has also grown (from 10.5% in 2006 to 30.4% in 2013), as well as number of companies with trusted representatives (from 8.5% in 2006 to 21.5% in 2013); in comparison with the survey of 2013, this is opposite to the results of the employers survey. Researchers have no reliable explanation for this paradoxical fact. Surveys of all three years, as well as the employees survey in all cases contain following tendency – the larger is the company, the larger is the likelihood of having any of the abovementioned persons. This means that data of the employees survey also confirm – social dialogue is better developed in large companies (see Table 15).

Table 15. Presence of authorised employee representatives (represent employees regarding legal labour relations), trade union representatives and trusted representatives (represent employees regarding occupational health and safety issues) in work places according to the opinion of corresponding employees

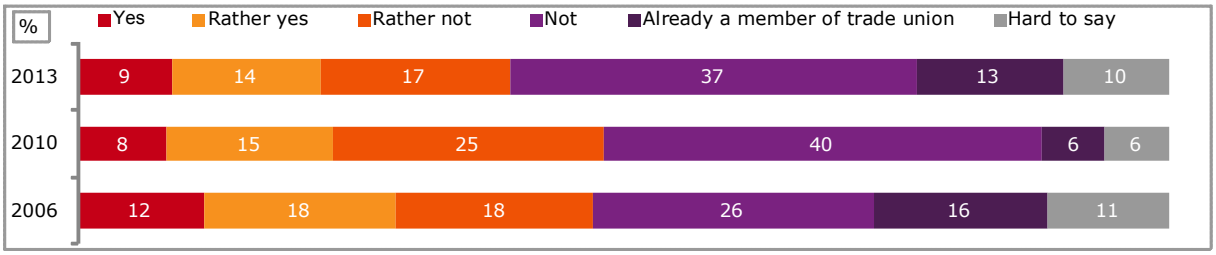
Representatives	Years	Number of respondents (%),who have mentioned presence of employees representatives, considering number of employees in the enterprise				
		1–9	10–49	50–249	250 and more	Hard to say
Authorised employee representatives	**2006**	6.5	14.6	28.5	41.1	18.0
	2010	8.9	16.1	21.2	43.1	18.8
	2013	11.0	19.3	26.9	41.8	17.8
Trade union representatives	**2006**	8.2	24.4	35.8	60.7	32.4
	2010	8.0	23.8	36.8	57.3	31.3
	2013	8.7	29.0	38.3	57.8	25.8
Trusted representatives	**2006**	5.5	15.3	24.8	38.8	21.4
	2010	11.3	17.3	24.1	40.8	20.8
	2013	9.4	19.1	28.0	39.4	14.9

Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378, in 2013: n = 2383.
Source: Employees survey.

Survey of 2013 reveals that there is less probability to have trade union representatives in companies, where salaries are paid in envelope (in companies, where salaries are paid in envelope every month – 5.6%, sometimes – 2.4%, never – 33.3%), and the same trend regards to authorized employee representatives (in companies, where salaries are paid in envelope every month – 6.6%, sometimes – 11.4%, never – 23.9%), but trusted persons are present slightly more frequently (in companies, where salaries are paid in envelope every month – 8.9%, sometimes – 10.9%, never – 22.9%). In its turn the survey of 2006 revealed a tendency that employees representatives were elected less frequently in companies, where salaries are paid in envelope at all cases, but in the survey of 2010 this tendency was observed only regarding trade union representatives and trusted persons, but presence of the authorized representatives was most frequently indicated by the employees receiving envelope salaries every month (12.7%), slightly less frequently – by those who never receive envelope salaries (11.8%), and the least frequently – those who sometimes receive envelope salaries (3.9%).

According to the employees survey they have no single opinion regarding trade unions, in addition among the respondents, who do not belong to any trade union, opinion in 2013 is as sceptical as before. In 2013 rate of the employees who are ready to join trade union in Latvia (*yes* and *rather yes*) is 23.0%, which is similar indicator to the one from 2010 (23.4%), but the highest rate of the employees ready to join trade union was in 2006 – 29.2%. Furthermore, number of respondents who are not ready to join trade union has decreased by 11.7% (*no* and *rather no*), but in 2013 such an opinion was provided by 54.7% (in 2010 – 64.9%) of all respondents. Additionally it should be noted that in comparison with 2010 number of respondents – members of trade union has increased (in 2006 – 16.1%, in 2010 – 5.8%, in 2013 – 13.5%), as well as the number of respondents, who are not sure about their readiness to join trade union (see Figure 39). Employees are still not sure that the trade unions are able to protect their rights.

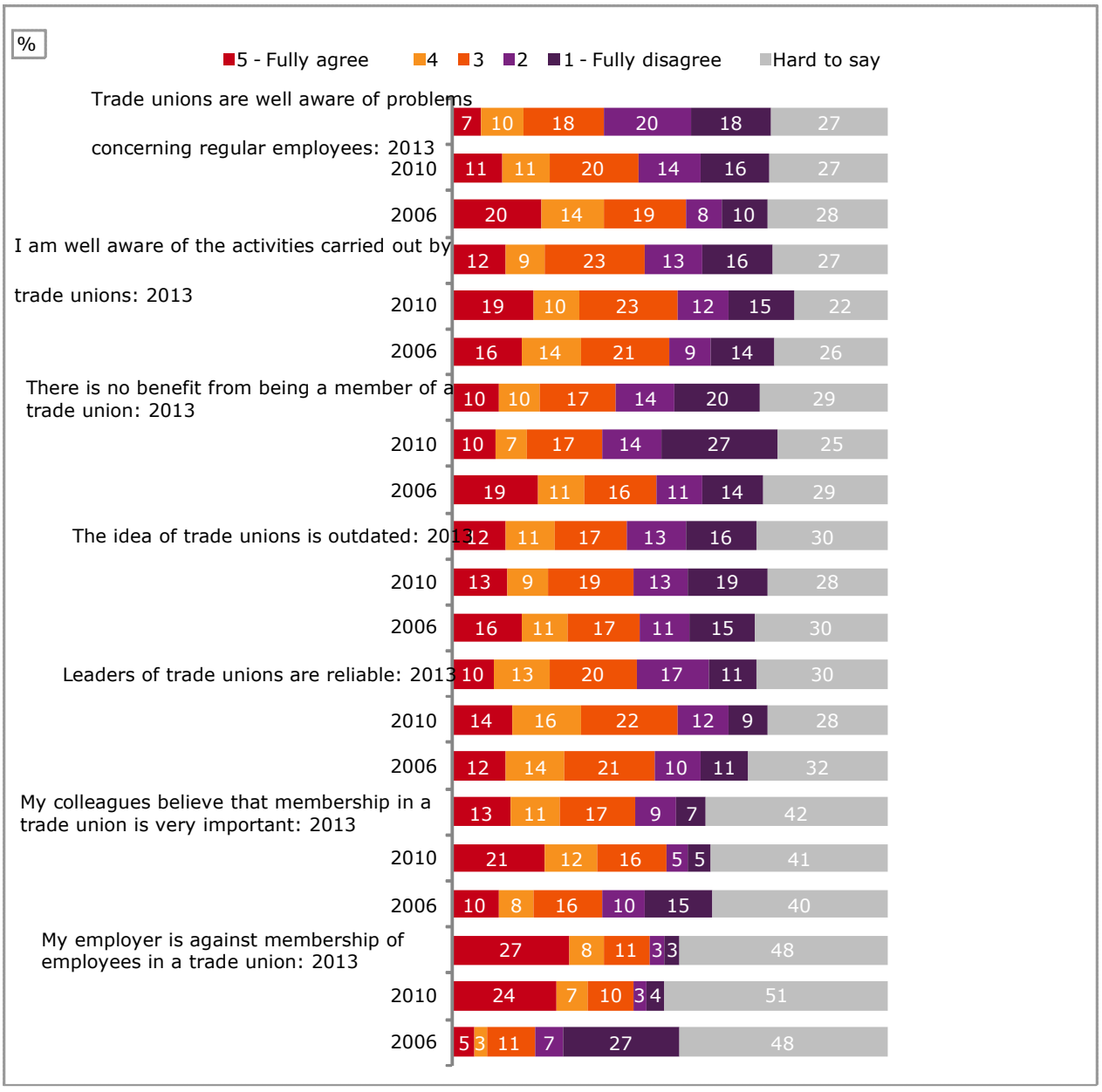
Figure 39. Readiness of employees for joining trade unions



Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

According to the survey of 2013, most members of trade unions belong to enterprises dealing with electricity, gas and steam supply (in 2013 – 27.4%, in 2010 – 35.9%), health and social care enterprises (in 2013 – 21.7%, in 2010 – 16.9%, in 2006 – 28.8%), manufacturing (in 2013 – 13.0%), manufacture of basic metals, fabricated metal products (in 2013 – 9.9%), manufacture of wood, products of wood and cork and of furniture (in 2013 – 9.8%), mining and quarrying (in 2013 – 9.7%) and water supply, sewerage and waste management (in 2013 – 7.7%, in 2010 – 25.7%), but in the survey of 2006, when division of sectors was different, most members of trade unions belonged to educational sector (52.6%) and enterprises dealing with electricity, gas and water supply (38.8%).
According to the survey of 2013, contrary to the previous surveys, women are more frequently ready to join trade unions (in 2013 –23.1%, in 2010 – 21.3%, in 2006 – 27.8%) than men (in 2013 – 21.2%, in 2010 – 26.4, in 2006 – 30.9%), furthermore, members of trade union are mostly women (in 2013 – 16.3%, in 2010 – 6.7%, in 2006 – 18.8%), but less frequently – men (in 2013 – 10.2%, in 2010 – 4.5%, in 2006 – 12.8%). In 2013 employees have mentioned that most frequently members of trade union are employees of non-governmental organizations (in 2013 – 26.9%, in 2010 – 12.3%, in 2006 – 15.4%), and not the respondents employed in public sector (in 2013 – 23.8%, in 2010 – 22.8%, in 2006 – 36.3%) and the respondents employed in private sector (in 2013 – 21.2%, in 2010 – 1.5%, in 2006 – 5.4%). Furthermore, rate of the respondents not willing to join trade union is higher in private sector (in 2013 – 62.3%, in 2010 – 70.2%, in 2006 – 49.5%), but number of these respondents in comparison with 2010 has decreased by 12.1%. In 2013 also a relation remains that number of the member of trade union grows along with the size of the company (from 20.3% (in micro-enterprises) to 24.5% (large companies)).
All respondents were asked to agree or disagree with different statements regarding trade unions in the range from 1 to 5, where 1 means “fully agree” and 5 means “totally disagree” (see Figure 40).

Figure 40. Assessment of trade union activities according to employees' survey



Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

It is obvious from the figure that large part of respondents found it difficult to answer questions on trade unions also in 2013, however, it should be noted that, in the opinion of employees, trade unions are not aware of the problems concerning regular employees, as well as do not have a good knowledge on operation of trade unions, leaders of trade unions are not reliable, colleagues believe that membership in a trade union is not important, and this mainly means that respondents lack real understanding, opinion or experience regarding meaning and activities of a trade union. It would be important to take into account that in 2013 employees indicate more frequently than within previous surveys that employers are against membership of employees in a trade union. Generally this indicates that trade unions must cooperate both with employers and employees explaining meaning and operational principles of trade unions. It would be recommended to perform situation assessment of

the companies of particular sector within the trade unions on regular basis, clarifying the most significant occupational health and safety problems in order to have better knowledge regarding problems of employees, because the employees in dynamics indicate that representatives of trade unions do not have a good knowledge regarding the actual situation in companies (for example, trade unions could perform internal audits in the companies by organizing meetings etc.). Dynamics in division by years reveal also the deterioration of reliability level towards the leaders of trade unions, therefore trade unions of each sector should analyze activity of their leaders in order to improve functioning of the trade union of the particular sector. Employees indicate that lack of support regarding the establishment of trade union agencies within the companies keeps growing. Taking into consideration the resources invested in the development of trade union activities during recent years the situation should be assessed as poor.

3.5.2 Involvement of employees in social dialogue within the enterprises

Opinion of employers. During the survey of 2013 3.2% of all employers noted that employees had frequently provided proposals regarding issues related to legal labour relations and occupational health and safety, but number of such respondents within the survey of 2010 was 2.7%; however, in comparison with 2006, this number is still nearly twice lower (in 2006 – 5.4%). Number of employers indicating that employees have provided proposals regarding issues related to improvement of working environment and legal labour relations rather rarely has decreased (in 2013 – 18.2%, in 2010 – 24.1%, in 2006 – 20.7%). Number of respondents who admitted that employees have never provided this kind of proposals has slightly grown (in 2006 – 73.0%, in 2010 – 72.3%, in 2013 – 74.5%). This shows that activity of employees involvement regarding solution of issues related to working environment and legal labour relations is low, furthermore, employers, as well as employees are not aware that this is one of the tools for improvement of work conditions.

Data of employees survey of 2013 show that similarly as in 2010 the highest activity of employees proposals regarding improvement of working environment and legal labour relations was observed in companies dealing with health and social care sector (in 2010 – 52.5%, in 2013 – 58.2%), manufacturing (in 2013 – 33.9%), production of food and beverages (in 2013 – 32.5%), manufacture of wood, products of wood and cork and of furniture (in 2010 – 37.9%, in 2013 – 24.5%), construction (in 2010 – 44.8%, in 2013 – 24.0%), manufacture of basic metals, fabricated metal products (in 2010 – 41.7%, in 2013 – 32.2%) and manufacture of paper and paper products, polygraphy (in 2013 – 27.1%). According to the survey data of 2006 the most active employees worked in companies dealing with electricity, gas and steam supply (during the last year 54.2% of the employees of this sector have provided proposals), in the sector of manufacture of basic metals, fabricated metal products and machinery this rate was lower (42.9%); the rate was lower than that in the companies dealing with production of food and beverages (36.8%), in educational establishments (36.0%), and in companies dealing with manufacture of wood, products of wood and cork and of furniture (36.0%).

Survey of 2013 reveals that the least active employees are still from the fisheries companies (in 2013 – 19.7%, in 2010 – 20.3%), agriculture and forestry companies (in 2013 – 21.1%, in 2010 – 22.3%) and upcoming sectors – water supply, sewerage and waste management companies (in 2013 – 25.3%, in 2010 – 22.3%) and companies dealing with manufacture of textile and clothing products (in 2013 – 18.9%, in 2010 – 23.8%). Whereas, according to the survey of 2006, the least active employees worked in fisheries companies (20.0%), construction companies (20.1%), agriculture, forestry and hunting companies (22.0%), health and social care companies (26.5%). Survey of 2010 included also health and social care sector and construction among the sectors with the most active employees,

however, in the survey of 2006 they were mentioned among the sectors with the least active employees. This could be explained by the extended informative work and various activities both by the trade unions of the respective sectors and by the VDI.

In common with the previous surveys, the survey of 2013 shows the same tendency that employees of large companies have provided proposals more frequently than in small ones (in 2013 – 1–10 employees – 16.6%, 10–49 employees – 46.1%, 50–249 employees – 59.8%, 250 and more employees – 61.8%, in 2010 – 1–10 employees – 45.0%, 10–49 employees – 46.8%, 50–249 employees – 63.7%, 250 and more employees – 67.5%; in 2006 – 1–9 employees – 18.6%, 10–49 employees – 43.3%, 50–249 employees – 60.7%, 250 and more employees – 71.8%). This can be possibly related to the fact that dialogue between the employer and employees is traditionally developed better in the large companies. Survey of 2013 has not kept the tendency – the older the enterprise is, the more frequently employees have provided proposals; in 2013 proposals to the employees are most frequently provided by the employees of companies founded before 1991, in addition the fact that second position in terms of proposals is taken by the employees of the companies founded during the last three years should be noted (in 2013 – companies founded before 1990 – 37.4%, companies founded between 1991 and 1995 – 23.8%, companies founded between 1996 and 2000 – 22.2%, companies founded between 2001 and 2005 – 18.8%, companies founded between 2006 and 2010 – 16.5%, companies founded between 2011 and 2013 – 24.2%; in 2010 – companies founded before 1990 – 33.2%, companies founded between 1991 and 1995 – 21.5%, companies founded between 1996 and 2000 – 25.8%, companies founded between 2001 and 2005 – 28.2%, companies founded between 2006 and 2010 – 36.0%; in 2006 – companies founded before 1990 – 41.3%, companies founded between 1991 and 1995 – 26.5%, companies founded between 1996 and 2000 – 28.4%, companies founded between 2001 and 2005 – 21.6%). Generally this indicates that, possibly, working environment and legal labour relations must be created afresh in recently founded companies, therefore employers and employees cooperate more actively.

Data of survey show that also in 2013 the most important issues in relation to which proposals have been provided regarding improvement of working environment and legal labour relations, are the issues regarding occupational health and safety, and this leads to conclusion that occupational health and safety issues at the level of company are the most important topics of the social dialogue (see Table 16).

Table 16. Topics of social dialogue in companies.

Topics	Number of respondents (%) indicated the respective topics		
	2006	**2010**	**2013**
Occupational health and safety issues	68.6 (1)	71.1 (1)	72.2 (1)
Social conditions, premises, territory, smoking area	28.4 (2)	26.7 (2)	38.1 (2)
Job management	3.3 (4)	1.7 (5)	12.7 (3)
Legal labour relations (employment contracts, salary etc.)	14.0 (3)	7.7 (3)	8.0 (4)
Fire safety	0.4 (6)	0.2 (6)	2.4 (5)
Various social guarantees (health	3.3 (4)	2.5 (4)	0.9 (6)

insurance etc.)			
Other proposals	3.1 (5)	*	*

* Such option was not provided.

Note: basis – all respondents, in 2006: n = 1058, in 2010 and 2013: n = 1044.
Source: Employers survey.

It must be noted that proportion of the respondents indicated that the provided proposals regarded occupational health and safety issues, social conditions, job management and fire safety has grown, at the same time number of respondents indicated that the provided proposals regarded social guarantees has decreased. In their turn proposals regarding legal labour relations (employment contracts, salary) were provided as frequently as in 2010, however, still significantly less frequently than in 2006. This could be related to the fact that employees were afraid to talk about occupational health and safety issues also under post-crisis conditions, when many companies were forced to optimize their operation and reduce number of employees and salaries, although employees should be more involved in solution of these issues right in such a situation.

Employers were asked to assess in the range of 10 points, where 10 means "fully consider", but 1 – "do not consider at all", at what extent they consider proposals regarding improvement of working environment provided by the employees. Data of survey show that employers indicated considering proposals provided by the employees in the survey of 2013 more frequently (8.3%) than in the previous surveys (in 2010 – 7.7; in 2006 – 8.1). In 2013 the highest rate of considering the proposals of employees is in mining sector (9.2), but sector with the lowest rate of considering the proposals of employees – water supply, sewerage and waste management (in 2013 – 7.8, in 2010 – 6.6), which is similar to the survey of 2010. However, in the survey of 2010 the sector with the highest rate of considering the proposals of employees was manufacture of textile and clothing products (9.2%).

Survey data of 2013 show that there are no relations among the periods of foundation of the companies, because in 2013 the highest rate was in the newest companies (founded between 2011 and 2013 – 9.3%) (founded between 2006 and 2010), where, according to the survey of 2010, rate is slightly higher (in 2006 – companies founded before 1990 – 8.3%, companies founded between 1991 and 1995 – 8.2%, companies founded between 1996 and 2000 – 8.1%, companies founded between 2001 and 2005 – 8.1%; in 2010 – companies founded before 1990 – 8.3%, companies founded between 1991 and 1995 – 7.8%, companies founded between 1996 and 2000 – 7.9%, companies founded between 2001 and 2005 – 7.2%, companies founded between 2006 and 2010 – 7.6%; in 2013 – companies founded before 1990 – 8.4%, companies founded between 1991 and 1995 – 8.4%, companies founded between 1996 and 2000 – 8.1%, companies founded between 2001 and 2005 – 8.7%, companies founded between 2006 and 2010 – 8.6%, companies founded between 2011 and 2013 – 9.3%). Survey data of 2013 show that the proposals of employees are equally considered in public sector (in 2013 – 8.4%, in 2010 – 7.7%, in 2006 – 7.9%) and private sector (in 2013 – 8.4%, in 2010 – 7.7%, in 2006 – 8.2%), but less frequently – in non-governmental organizations (in 2013 – 7.2%, in 2010 – 8.4%).

Opinion of employees. Activity of the employees regarding provision of proposals was analyzed in equal manner. They had to answer the question, whether they had recently provided proposals regarding improvement of work conditions and occupational environment or ordering of legal labour relations. Once such proposals have been provided by 8.4% (in 2010 – 6.0%, in 2006 – 7.8%) of all respondents, several times – by 16.2% (in 2010 – 24.3%, in 2006 – 18.9%) of all respondents, no

proposals have been provided by 73.5% (in 2010 – 69.1%, in 2006 – 72.1%) of the respondents, but 1.8% of the respondents had difficulties to answer this question (in 2010 – 0.6%, in 2006 – 1.2%). In general, according to the survey of 2013 slightly higher number of employees has provided proposals, but at the same time slightly higher number of employees has not provided any proposals regarding improvement of work conditions and occupational environment or ordering of legal labour relations.

Similarly as in the previous studies, also in 2013 proposals were provided with approximately equal frequency both by men – 26.4% (in 2010 – 33.5%, in 2006 – 27.5%) and women – 23.2% (in 2010 – 28.1%, in 2006 – 26.0%). According to the survey of 2013 the most active employees having provided proposals, similarly as in previous surveys, were the respondents aged 25 to 34 years – 31.4% (in 2010 – 30.8%, in 2006 – 31.4%), as well as aged 18 to 24 years – 26.4%. Latvians have shown slightly higher activity than representatives of Russian (in 2006 – 24.6%, in 2010 – 24.3%, in 2013 – 16.0%) and other nationalities (in 2006 – 22.5%, in 2010 – 27.3%, in 2013 – 25.0%) also according to the survey of 2013 (in 2006 – 28.4%, in 2010 – 33.3%, in 2013 – 28.1%). Survey of 2013, similarly as surveys of previous years, reveals following tendency the higher is educational level, the higher is the rate of respondents having provided proposals regarding improvement of working conditions or occupational environment or ordering of legal labour relations. Also in the survey of 2013, similarly as in the survey of 2006, proposals regarding improvement of workplace were provided by the respondents with the length of service in their principal work up to 12 months much less frequently than by the respondents of other groups (in 2013 – with the length of service up to 12 months – 19.7%, 1–5 years – 25.6%, 5–10 years – 26.2%, 10–15 years – 26.2%, more than 15 years – 25.0%; in 2006 - up to 12 months – 19.1%, 1–5 years – 27.5%, 5–10 years – 33.2%, 10–15 years – 26.2%, more than 15 years – 27.6%), but, according to the survey of 2010, least frequently the proposals were provided by the respondents with the length of service from 1 to 5 years, but most frequently – the respondents with the length of service from 5 to 10 years (up to 12 months – 28.1%, 1–5 years – 26.9%, 5–10 years – 35.4%, 10–15 years – 34.9%, more than 15 years – 31.7%).

3.6 Occupational health and safety – awareness and training

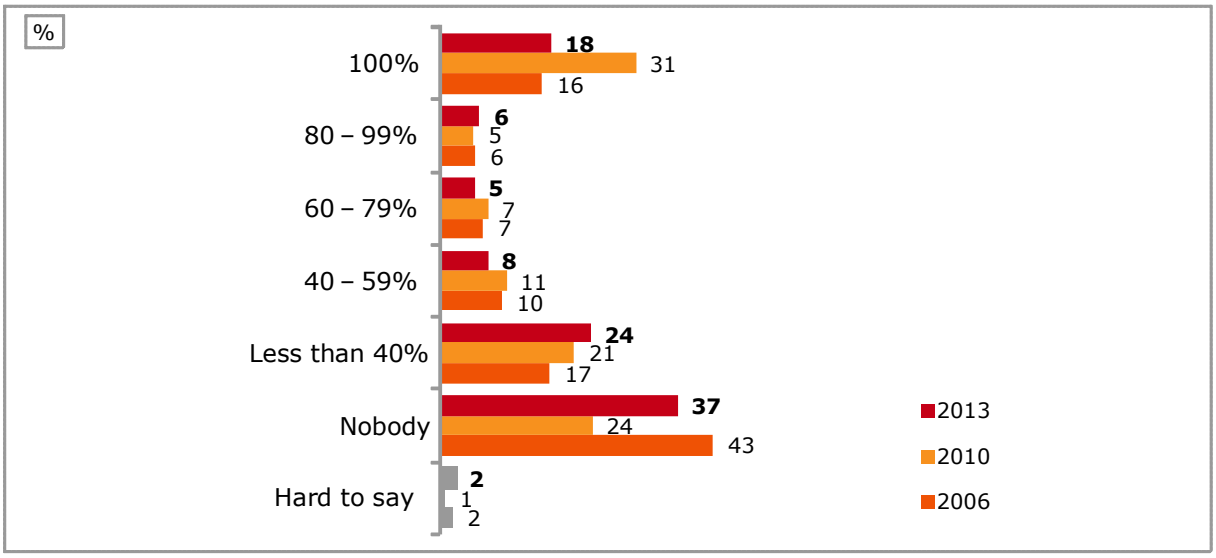
Level of occupational health and safety, as well as accidents at work and development of occupational diseases are very significantly affected by attitude and understanding of each individual worker regarding these issues, therefore, in order to reduce number of accidents and occupational diseases their understanding on occupational health and safety issues must be increased thus stimulating the development of preventive culture.

3.6.1 Awareness levels among employers

Employers were asked to estimate the total number of employees working in their enterprises and exposed to any occupational risks (chemical, physical, ergonomic, psychosocial, risks of injuries, others), evaluating the percentage of the total number of employees (see Figure 41). The main purpose of asking this question was not to estimate number of workers subject to occupational risks, but to establish awareness levels among employers concerning presence of occupational risks in any working

environment, because in fact there is actually none risk free workplace/work method in Latvia (even if everything feasible has been done to reduce risks, occupational risk factor is still present within the working environment; for example, even if it has been ensured that concentrations of chemicals in working environment do not exceed the occupational exposure limit values, these chemicals are still present in the air of the working environment and employees are still inhaling them. Similarly, when driving a vehicle even if one fully complies with the Road Traffic Regulations, risk of traffic accident is still there.)

Figure 41. Number of employees in Latvian companies subject to occupational risks – as perceived by their employers



Note: basis – all respondents, in 2006: n = 1058, in 2010: n = 1044; in 2013: n = 1044.
Source: Employers survey.

According to the survey of 2013 37.5% (in 2010 – 24.0%) of the respondents indicated that none of their employees are subject to any occupational risk, representing 13.5% over the survey of 2010. Consequently, lack of understanding among employers about these issues has become more topical, and the situation has further deteriorated. Deterioration of the situation has been confirmed also by the fact that the survey of 2013 presents lower number of the respondents asserting that all employees are subject to any occupational risk – in 2006 such indicator was provided by just 16.0% of the respondents, but in 2010 – by 30.8% of respondents, and more respondents in 2013 – 17,5%. This could be partly explained by slightly different division of the employers – respondents, but basically it is necessary to significantly improve awareness of employers regarding working environment and occupational risks (for example, more active information of employers and their representatives using various media and social networks, determination of compulsory minimum training regarding occupational health and safety to any employer possibly financing this training from the resources of the state budget or the Programme of preventive measures of VSAA, promotion of development of different informative materials on the economic benefit from occupational health and safety, determination of occupational health and safety as the obligatory subject of studies under the study programmes of business management etc.).

3.6.2 Awareness levels among employees

Regarding the awareness of employees, 68.6% (in 2010 – 51.7%, in 2006 – 61.2%) of employers have performed their obligation in 2013 – they have informed the employees about occupational risks of their workplaces (chemical, physical, ergonomic, psychosocial, risks of injuries, others). In comparison with the survey data of 2010 number of these respondents has grown by 16.9%, in addition it is higher than in 2006. This is generally positive tendency and shows that employers have performed this obligation more conscientiously. Number of the respondents considering that such information does not apply to them has significantly decreased in 2013 (in 2013 – 11.3%, in 2010 – 21.0%, in 2006 – 17.8%), consequently understanding of employees regarding issues related to occupational risks and their possible impact on their health and safety has slightly improved. This fact is confirmed also by the answers to the next question – have the respondents been informed in their workplace about impact of the occupational risks on their health and the necessary health examinations, because just 7.2% (in 2010 – 15.1%, in 2006 – 18.6%) of the respondents have replied that this issue did not apply to them or such information is not necessary.

In the survey of 2013 the highest rates of the respondents indicating that they have not received information on hazardous factors of their workplaces are among companies dealing with manufacture of wood, products of wood and cork and of furniture (in 2013 – 25.3%, in 2010 – 21.6%), agriculture and forestry (in 2013 – 20.6%, in 2010 – 22.3%), construction (in 2013 – 19.5%, in 2010 – 30.0%, in 2010 – 25.5%), but lower than on average in Latvia – among companies dealing with fisheries (in 2013 – 14.7%, in 2010 – 51.0%), manufacture of basic metals, fabricated metal products (in 2013 – 13.3%, in 2010 – 39.0%) and manufacturing (in 2013 – 11.8%, in 2010 – 37.3%). It must be noted that unawareness about the hazardous occupational factors has increased among companies dealing with manufacture of wood, products of wood and cork and of furniture, at the same time in other sectors unawareness has decreased.

In the survey of 2013 the highest rate of employees having indicated that this issue does not apply to them is among the unseparated sectors (14.1%), including, for example, wholesale and retail trade, catering services, public administration, education and other, manufacture of paper and paper products, polygraphy (in 2013 – 13.7%, in 2010 – 19.2%), health and social care (in 2013 – 13.3%), but in the survey of 2010 the highest rate of employees considering that information about occupational risks in the workplace does not apply to them or is unnecessary was among the sector of manufacture of paper and paper products, polygraphy (19.2%) and the unseparated sectors (26.5%) including, for example, wholesale and retail trade, electricity supply, gas supply, catering services, public administration, education and other. In its turn in the survey of 2006 the highest rate of employees having indicated that this issue does not apply to them was among education (35.5%) and fisheries (28.1%) sector.

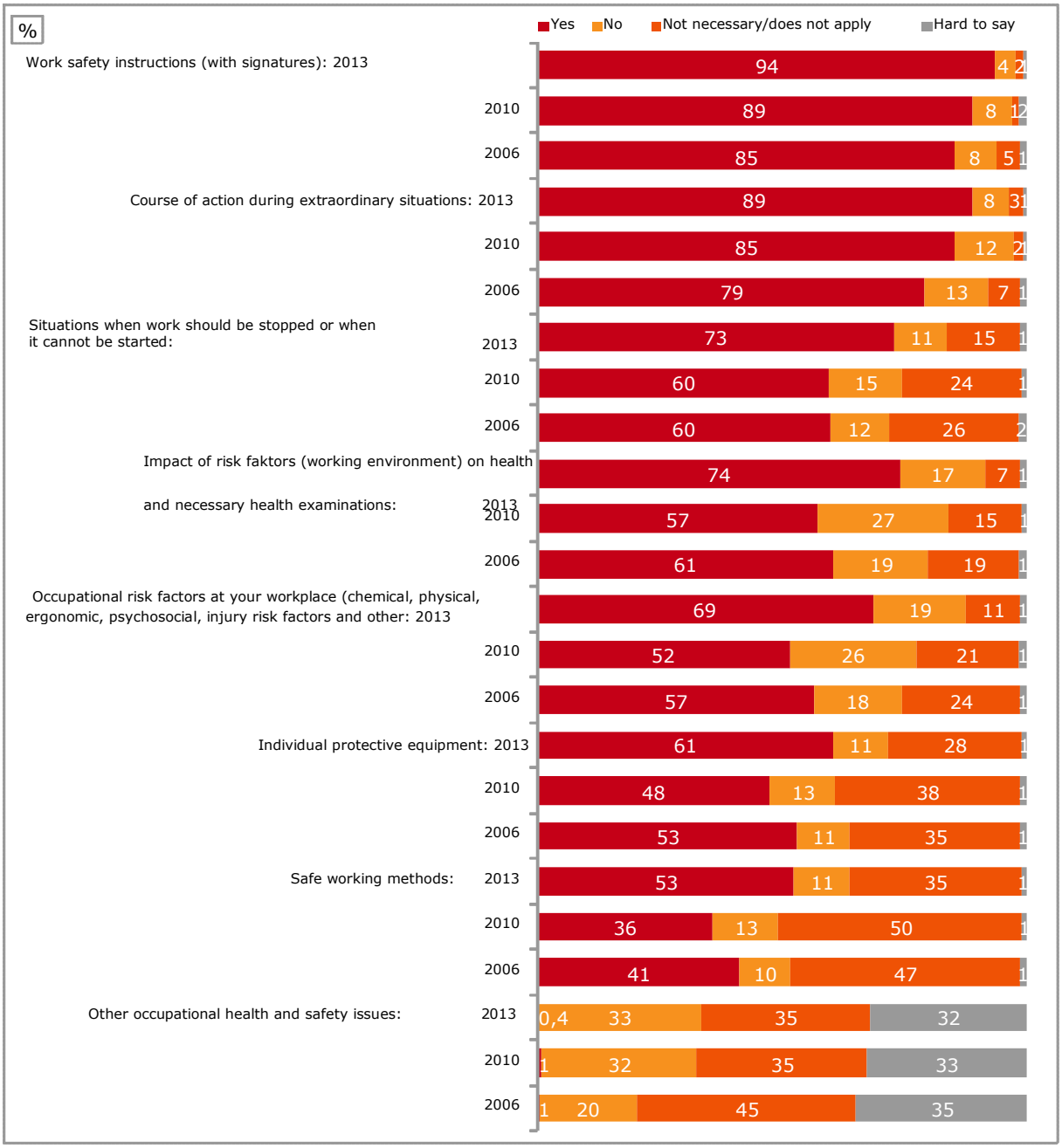
According to the survey of 2013, there was also insufficient information about the possible consequences of the impact of risk factors in companies dealing with manufacture of wood, products of wood and cork and of furniture (26.2%), manufacture of basic metals, fabricated metal products (23.5%), manufacture of textile and clothing products (23.1%), and construction (21.7%), but, according to the survey of 2010, and the highest rate of employees having failed to receive information about the impact of risk factors on health was among employees working in fisheries (51.5%) and construction (34.6%). Whereas in 2006 there was insufficient information about the possible consequences of the impact of risk factors in companies dealing with agriculture, forestry and hunting (27.5%), construction (26.9%) and manufacturing (25.9%). In general, situation on receipt of the information on issues regarding impact of risk factors on health has slightly improved.

Also in the survey of 2013 the same tendency remains that men are aware of the occupational risk factors more frequently than women (in 2006 – men – 62.8%, women – 51.6%; in 2010 – men – 59.6%, women – 46.1%; in 2013 – men – 75.0%, women – 63.2%), as well as of impact of risk factors on health (in 2006 – men – 63.2%, women – 58.5%; in 2010 – men – 60.6%, women – 54.8%; in 2013 – men – 76.0%, women – 73.0%). In contradistinction to the surveys of previous years employees of the middle age are less aware of the occupational risk factors than representatives of other age groups, but, in common with the previous surveys, young people are less aware of the impact of occupational risk factors on health (in 2006 – risk factors – aged 18–24 years – 51.4%, other age groups – 55.1–58.7%, possible impact on health – aged 18–24 years – 53.1%, other age groups – 58.5–65.5%; in 2010 – risk factors – aged 18–24 years – 41.4%, other age groups – 51.3–55.5%, possible impact on health – aged 18–24 years – 49.5%, other age groups – 53.3–61.5%; in 2013 – risk factors – aged 45–54 years – 66.7%, other age groups – 67.7–71.0%, possible impact on health – aged 18–24 years – 71.9%, other age groups – 74.2–74.9%). In common with the survey of 2006, also in 2013 no significant differences regarding awareness on occupational environment risks was observed among respondents of different nationalities (Latvians: in 2013 – 68.5%, in 2006 – 60.2%, Russians: in 2013 – 68.4%, in 2006 – 60.8%, other nationalities: in 2013 – 69.9%, in 2006 – 62.5%), but the survey of 2010 shows that the Russians have been less aware (Latvians – 53.9%, Russians – 45.7%, other nationalities – 54.6%).

Although in general more than half of the employees are aware of the occupational risk factors in the company and possible impact of these hazardous factors on their health, supposedly, the information is still insufficient and of low quality, since good quality information is possible regarding efficiently and correctly assesses occupational risks. At the same time, also in 2013 employers survey shows that the situation regarding occupational risk assessment should still be assessed as dissatisfactory (or the occupational risk assessment has not been carried out at all), wherewith quality of the received information is possibly low. Taking into consideration that the obligation of employers regarding information of employees has been in force for several years, supposedly, the employers must be assisted by preparation of simple and short explanatory visual materials about each of the hazardous occupational factors, and they should be distributed using various alternative ways.

With the regard to topics on which employees have been informed within the last year, the most significant one is workplace safety instructions, which must bare employee's signature. However, upon more detailed questions about the contents of such instructions one can conclude that lower number of cases, when they have been just a formality or they have not contained full information in 2013 (see Figure 42). For example, should inform every employee on issues like situations, when employee should not work at all and when the work should be abandoned, however, it must be noted that employees survey of 2013 reveal that 73.0% of respondents have received such information (in 2010 – 59.7%), representing 13.3% over 2010. At the same time survey results do not allow answer the question, why the employees have not been informed on various occupational health and safety issues – whether the problem is incomplete texts of the instructions or the signatures are simply collected without performing any instructions and trainings or the employees are careless during the instructions and trainings etc. Thus, one can conclude that instruction including signature in documents does not reach the goal – employees do not become more knowledgeable.

Figure 42. Topics on which employees have been informed at their working place within the last year



Note: basis – all respondents, in 2006: n = 2455, in 2010: n = 2378; in 2013: n = 2383.
Source: Employees survey.

As it can be seen in Figure 42, in 2013 93.6% (in 2010 – 88.9%, but in 2006 – 85.4%) of all respondents have admitted that employer has provided them workplace safety instructions and they have signed for that. In general, this is a good indicator with 8.3% improvement since the previous studies. Also in the survey of 2013 the poorest indicators were in agriculture, hunting and forestry (89.3%; besides, 2.0% of respondents in this sector thought they did not need such instructions), as well as in construction (92.3%; 1.3% of respondents in this sector thought they did not need such instructions), however, in comparison with 2010 the situation has improved, because the poorest results in the survey of 2010 were observed in agriculture and forestry (86.6%; 2.0% of in this sector thought they did not need such instructions), and in two sectors, where the instruction was performed least frequently – fisheries (72.8%, 0.0% of respondents in this sector thought they did not need such

instructions) and construction (84.5%; 1.1% of respondents in this sector thought they did not need such instructions). Whereas, in the survey of 2006 the poorest results were observed in agriculture, hunting and forestry (77.9%; furthermore, 4.5% of respondents in this sector thought they did not need such instructions), as well as in construction (80.3%; 5.3% of respondents in this sector thought they did not need such instructions). It must be noted that in 2013 there are several sectors observed, where the employers have provided workplace safety instructions in 100% of cases – mining and quarrying, production of food and beverages, manufacture of paper and paper products, polygraphy.

In common with the previous surveys, there is still a significant problem – unqualified workers have received such instructions least frequently (in 2006 – 75.9% versus 85.4% on average in Latvia, in 2010 – 81.8% versus 88.9% on average in Latvia; in 2013 – 90.8% versus on average in Latvia). According to the survey data of 2013, most frequently work safety instruction has been carried out in public sector – 97.3% (in 2010 – 94.5%, in 2006 – 91.8%), in private sector – 91.4% (in 2010 – 87.3%, in 2006 – 82.4%), but least frequently work safety instruction has been carried out for the employees of non-governmental organizations – 87.4% (in 2010 – 98.4%, in 2006 – 82.4%), which is opposite to the previous surveys, showing that in non-governmental organizations the work safety instruction was carried out most frequently. In general performance of work safety instructions has grown in the public and private sector. Also 2013 shows remaining tendency – the rate of employees, who have received such instructions, increases with the size of companies (in 2013 – 1–10 employees – 88.9%, 11–49 employees – 93.8%, 50–259 employees – 95.8%, 250 and more employees – 97.0%; in 2010 – 1–10 employees – 87.8%, 11–49 employees – 93.3%, 50–259 employees – 95.7%, 250 and more employees – 97.3%; in 2006 – 1–9 employees – 72.9%, 10–49 employees – 85.3%, 50–259 employees – 91.4%, 250 and more employees – 94.5%). Similarly tendency remains that employees who never receive envelope salaries have received instruction most frequently – 94.9% (in 2010 – 91.3%, in 2006 – 88.8%), but employees, who receive envelope salaries have received instruction much less frequently (sometimes receive envelope salaries: in 2013 – 87.8%, in 2010 – 87.0%, in 2006 – 74.4%; every month: in 2013 – 77.5%, in 2010 – 74.0%, in 2006 – 68.6%). Furthermore, a tendency also remains that the respondents from Riga mentioned such instructions less often (in 2013 – 90.6%, in 2010 – 87.5%, in 2006 – 81.0%), a little more frequently – in small villages and rural areas (in 2013 – 95.2%, in 2010 – 87.8%, in 2006 – 88.5%), but most frequently – in other cities (in 2013 – 95.5%, in 2010 – 91.8%, in 2006 – 88.7%).

The survey results of 2013 show that situation related to information on prevention of direct hazards has improved (for example, situations, when employees should not start a certain operation, and when currently performed operations should be abandoned), because the rate of employees informed on such issues was higher – 73.0% (in 2010 – 59.7%, in 2006 – 59.8%) of respondents, furthermore, only 14.8% (in 2010 – 24.4%, in 2006 – 26.2%) of respondents thought that such issues did not applied to them, and this is better indicator than in the surveys of previous years. In common with the survey of 2006, the survey of 2010 also shows that men (in 2013 – 80.9%, in 2010 – 69.9%, in 2006 – 69.7%) are informed on such situation more frequently than women (in 2013 – 66.3%, in 2010 – 52.5%, in 2006 – 51.8%).

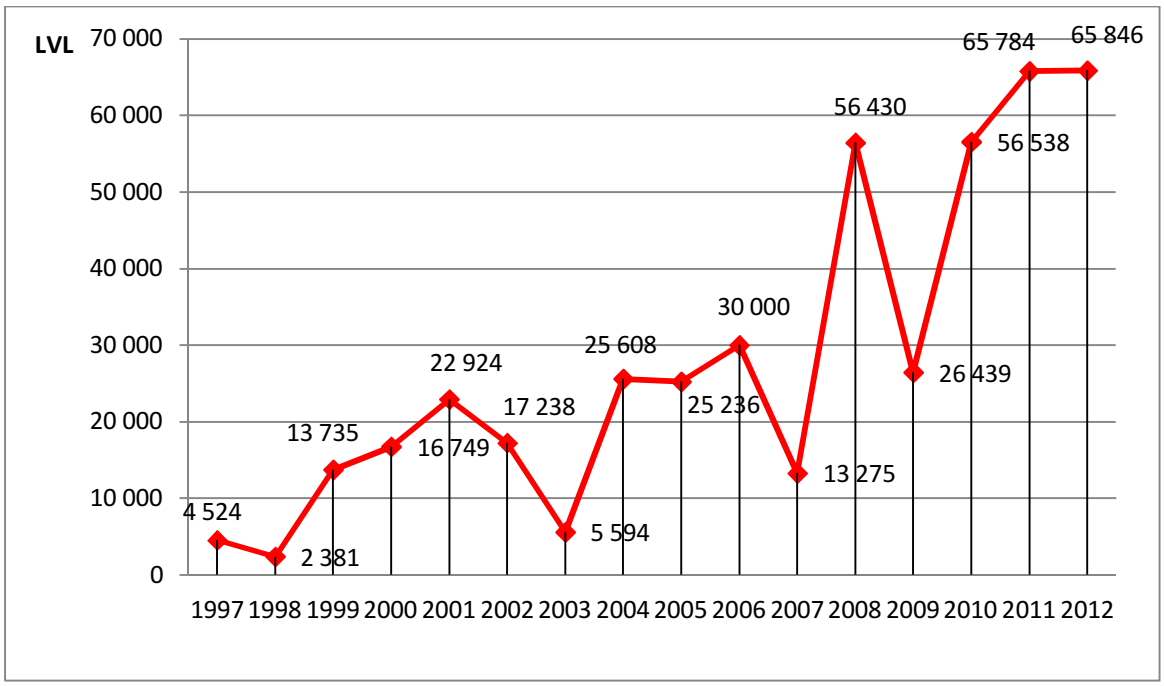
3.6.3 Information materials on occupational safety information and their availability

As it can be seen from the above presented results, generally, public awareness should be regarded as low and not satisfactory, therefore each of the Studies "Work Conditions and Risks in Latvia" attempted to find the causes behind this situation. Over the course of the last years several awareness building and information materials have been prepared and distributed in Latvia, however, general public is still not sufficiently informed about occupational risk assessment requirements and other requirements included in the Labour Protection Law and related regulations. The Study "Work Conditions and Risks in Latvia, 2005-2007" indicated that the conventional channels of information distribution (printed materials, seminaries, courses and other) have not resulted in the expected outcomes, particularly in smaller companies, in private sector and in companies established after the regaining of independence in Latvia, however, significant changes have commenced only during the last years, when range of the information materials has become diversified and various kind of other information activities are being acquired, for example, information in social networks, more extended use of video materials, posting of the seminary presentations on websites of the concerned institutions, informative seminaries in regions, informative activities for teachers and other.

Further informative activities should be aimed at maximum range of the involved persons and specialists (for example, specialists providing training in entrepreneurship, teachers etc), as well as wider use of easy understandable information transfer forms, for example, video files, as well as more extended use of social networks.

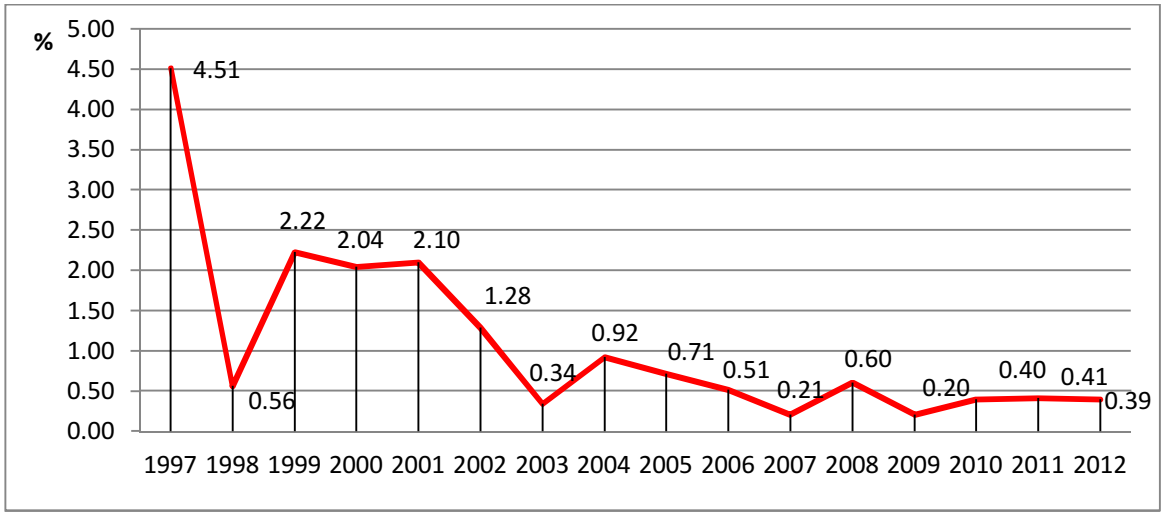
The only regular financing source of the informative materials is the Special Budget for workplace accidents, and the application takes place according to the legislation, however, no constant percentage of this budget was foreseen until the end of 2009 (see Figures 43 and 44) (the situation has changed as of 01.01.2010, when the amendments of law resulted in diversion of 0.5% of the Special Budget for workplace accidents for the preventive measure purposes).

Figure 43. Expenses of the Special budget for workplace accidents for the purposes of preventive measures in 1997-2012 (lats)



Source: VSAA.

Figure 44. Expenses of the Special budget for workplace accidents for the purposes of preventive measures in 1997-2012 (% of the total expenses)



Source: VSAA.

As it can be seen, although in absolute numbers during the period between 1997 and 2008 growth of expenses was observed, which should be considered a very positive tendency, however, upon calculation of percentage from the total expenses downward trend of the expenses for preventive measures was observed. In 2009 along with the amendments in Law On Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases (adopted on 02.11.1995) constant percentage was specified nationwide (not exceeding 0.5%) to be spent for the preventive measures, and along with the introduction of new approach in the occupational health and safety system (occupational health and safety measures should be aimed at risk factors and their prevention instead of the consequences and their prevention) nationwide promotion of preventive occupational health and safety culture is very substantial. However, in general the amount of resources foreseen for the preventive measures is not high, and data suggests that in terms of percentage of the total expenses the proportion of expenses planned for preventive measures is decreasing.

Implementation of the preventive measures was organized by the VSAA until 1 January 2010, but the abovementioned amendments of law specify, that according to the recommendations of the Ministry of Welfare preventive measures are implemented by Institute for Occupational Safety and Environmental Health of Rīga Stradiņš University. 135 various informative explanatory materials regarding occupational health and safety issues (books, brochures, leaflets, posters and other) have been prepared (including update) and published with financing from the Special Budget for workplace accidents during the last three years. Materials have become more various during the last three years – for example, visual informative posters have been prepared, animation film in three languages to be used for the training of employees in occupational health and safety issues, practice standards for various sectors, spots on occupational health and safety issues in TV programmes and such. In comparison with situation in Latvia in 2013 with the problems identified with in the Studies "Work conditions and risks in Latvia, 2005-2007" and "Work conditions and risks in Latvia, 2000-2010" the situation has changed substantially. It was indicated in 2010 that most of the materials prepared between 2003 and 2009, are not available in electronic format for lasting period of time or, if the materials are available in electronic format they contain outdated versions, but separate printed materials in great numbers are available in the VSAA and VDI. The abovementioned materials were

reviewed in 2011 solving also the other problem identified during the study – easy correctable electronic versions of all the materials (for example, in Word format) are not available to such authorities, as the State Labour Inspectorate of the Ministry of Welfare of the Republic of Latvia, and this can substantially bother simple and cheap update of the existing materials. Currently the Word versions of all materials are classified and stored in the Institute for Occupational Safety and Environmental Health of RSU. Currently developed and updated informative materials can be found in several internet resources:

- www.osha.lv;
- www.rsu.lv/ddvvi;
- VDI *Youtube* channel - http://www.youtube.com/user/LMVDI#p/u (animation films in Latvian and Russian, spots in TV programmes).

In 2010 further education of occupational health and safety specialists was commenced organizing various seminaries (for example, on specific sectors, specific risk factors), furthermore, presentations of all past seminaries are available also in those cases, if the specialists have not been able to attend the seminaries (presentations are available on: the website of the Institute for Occupational Safety and Environmental Health of Rīga Stradiņš University www.rsu.lv/ddvvi) (see thematic Annex "Training of occupational health and safety specialists" for more detailed information).

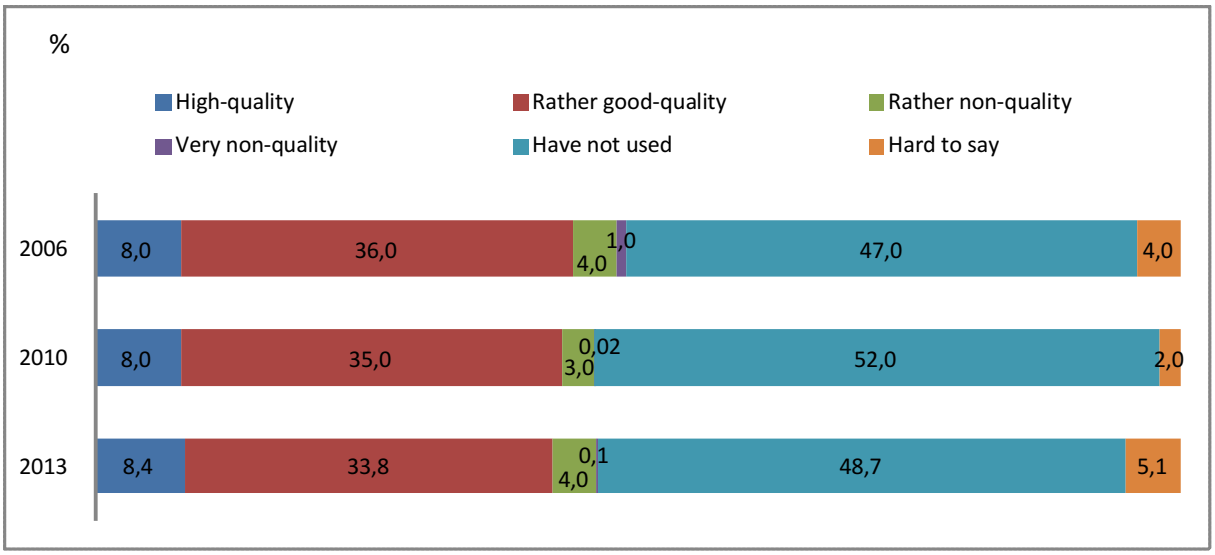
It must be additionally noted that the Study results show – employees are not sufficiently aware of the occupational risk factors and their possible impact on health, as well as of their obligations and rights. This indicates on necessity to change format and availability of the informative materials (for example, by wider use of video and photo materials, wider use of social networks and such), as well as change of the information distribution channels (for example, organization of informative activities in regional cities, directly addressing local employers and employees etc.). It must be noted that as of 2014 establishment of a new website dedicated for occupational health and safety in Latvia for summarization of all the information.

3.6.4 Training of occupational health and safety specialists, quality of training

During the Study training procedure for occupational health and safety specialists was defined by the Regulations of the Cabinet of Ministers No. 749 "Regulations Regarding Training in Labour Protection Matters" (adopted on 10.08.2010, in force as of 01.01.2010). These regulations define in between the training procedure of trusted persons and employees in labour protection matters, as well as levels of labour protection training and the respective rights of labour protection specialists.

In total 48.7% (in 2010 – 52.1%, in 2006 – 46.9%) of the employers were not able to assess the training quality, since they had never used it. Respondents who indicated that they had used such training were asked to assess the acquired training in following categories: high-quality, rather good-quality, rather non-quality, very non-quality. Obtained survey results show that 8.4 (in 2010 – 16.7%, in 2006 – 16.6%) of the respondents consider that training was high-quality, 33.8% (in 2010 – 72.3%, in 2006 – 73.0%) – rather non-quality, 4.0% (in 2010 – 7.0%, in 2006 – 9.0%) – rather non-quality, 0.1% (in 2010 – 0.1%, in 2006 – 1.4%) – very non-quality. Generally positive trend is reduced number of employers who have not used training of occupational health and safety specialists, but slightly lower number of employers assess it as good-quality ones (see Figure 45).

Figure 45. Quality of training of occupational health and safety specialists



Note: basis – all respondents; in 2006: n = 1058; in 2010: n = 1044.
Source: Employers survey.

Analysis across the sectors reveals that the most critical respondents represented the companies dealing with mining and quarrying (in 2013 – 6.4%, in 2010 – 22.2% of them indicated the training as very non-quality or rather non-quality), water supply and waste management (in 2013 – 6.4%), construction (in 2013 – 5.6%), health and social care (in 2013 – 1.4%, in 2010 – 20.4%). It must be noted that such assessment as non-quality and very non-quality training of occupational health and safety specialists has substantially decreased across the sectors. Analysis of the provided answers across other parameters reveals that also in 2013 no substantial differences depending on the number of employees are observed (in 2013 – in companies with 1–10 employees 3.5% of the respondents assessed the training as very non-quality or rather non-quality; in companies with 11–49 employees – 9.1%, with 50–249 employees – 0.6%, with 250 and more employees – 4.7%; in 2010 – in companies with 1–10 employees 7.5% of the respondents assessed the training as very non-quality or rather non-quality, in companies with 11–49 employees – 6.7%, with 50–249 employees – 3.5%, with 250 and more employees – 6.9%; in 2006 – in companies with 1–9 employees 12.2% of the respondents assessed the training as very non-quality or rather non-quality; in companies with 10–49 employees – 8.6%, with 50–249 employees – 6.0%, with 250 and more employees – 3.8%). Similar tendency can be observed within the analysis, where age of the company is considered, except for companies founded before 1990 (in 2013 – company founded before 1990 – 4.4% of the respondents assessed the training as very non-quality or rather non-quality, 1991–1995 – 4.3%, 1996–2000 – 2.9%, 2001–2005 – 5.2%, 2006–2010 – 3.8%, 2011-2013 – 0%; in 2010 – company founded before 1990 – 16.9% of the respondents assessed the training as very non-quality or rather non-quality, 1991–1995 – 4.8%, 1996–2000 – 7.6%, 2001–2005 – 6.2%, 2006–2010; in 2006 – company founded before 1990 – 7.2% of the respondents assessed the training as very non-quality or rather non-quality, 1991–1995 – 4.0%, 1996–2000 – 11.7%, 2001–2005 – 14.9%). Also in 2013 the number of companies having indicated dissatisfaction with the training quality of occupational health and safety specialists in regional dimension is low; therefore it is impossible to perform more detailed analysis of this parameter. At the same time analysis across the territorial units of the VDI revealed that Southern region was indicated as very problematic in 2006, where 36.6% of respondents assessed the abovementioned training as rather non-quality or very non-quality. Whereas, upon analysis of the answers in the dimension of

previous regional division of VDI it must be indicated that substantially more positive assessment of respondents is observed in the Southern region. Only 0.2% of the respondents have assessed the basic level training of occupational health and safety specialists as rather non-quality or very non-quality. Analysis across the regional division of VDI in 2013 reveals that following regions should be mentioned as more critically assessed ones: Zemgale region (8.7% of the respondents have assessed the training as rather non-quality or very non-quality), Kurzeme region (4.6%), Riga region (3.6%) and Vidzeme region (2.5%). But analysis across the new regional division of VDI in 2010 reveals that following regions should be mentioned as more critically assessed ones: Riga region (9.4% of the respondents have assessed the training as rather non-quality or very non-quality), Vidzeme region (9.7%) and Kurzeme region (10.6%). This can be explained by operation of specific training institutions, especially, if there is low number of centres providing training for occupational health and safety specialists.

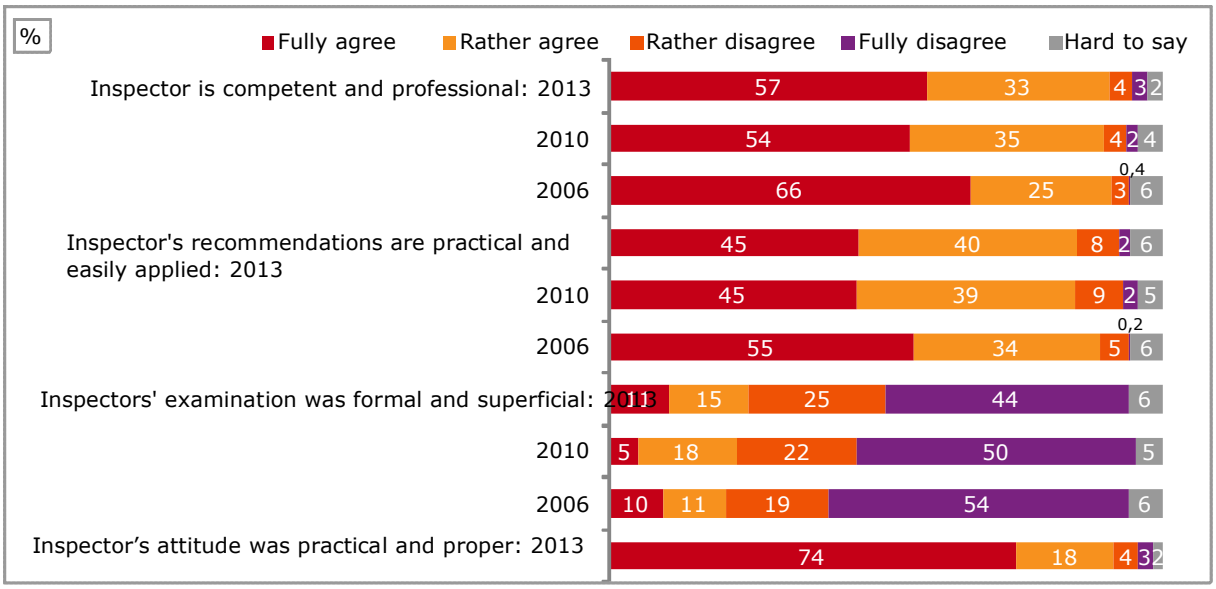
3.7 Assessment of activities of the State Labour Inspectorate

The State Labour Inspectorate is a public institution responsible for supervision and control in the fields of legal labour relations, occupational health and safety. Study "Work conditions and risks in Latvia" includes activities of the VDI from several aspects (see thematic Annex "State Labour Inspectorate" for more information").

Results of this Study indicate significant differences across the territorial units of the State Labour Inspectorate – both in terms of occupational health and safety conditions in companies, and in terms of compliance with legislation. Similarly as in both previous surveys Riga Region in several cases was found to be among the more problematic ones (for example, in terms of occupational risk assessments, non-disclosure of workplace accidents etc.). During the previous cases, trying to identify the most significant problems territorial distribution of inspectors was analysed (per 1000 employees), however, taking into consideration the changes in regional structure of VDI implemented during the recent years (in 2008 and in 2012), analysis of such data is not possible anymore. However, taking into consideration that upon assessment of the activities of VDI by other parameters differences across regions are vast; possibly, territorial distribution of inspectors is not even throughout the territory of Latvia.

Opinion of employers. Data obtained during the survey of employers suggest that although the inspectors are competent and knowledgeable, and their advice is practical and applicable; however, the most significant problems are related with formal and superficial approach towards inspections (see Figure 46).

Figure 46. Characterisation of cooperation between employers and the labour inspectors



Note: basis – employers, whose company has been visited by the State Labour Inspectorate within the last three years, in 2006: n = 552, in 2010: n = 555; in 2013: n = 521.
Source: Employers survey.

In order to obtain general picture about employers' opinion on the activities carried out by the State Labour Inspectorate in different regions, taking into consideration all three questions, regions of the VDI were arranged according to the employers' assessment. The best assessed region got 1 point, while the worst – 5 points. Then the points were scored by each region: least total number of points indicated on better assessed region in the opinion of the employers, the highest number of points – on the worst assessed one (see Table 17).

Table 17. Employers' opinion on activities of the State Labour Inspectorate

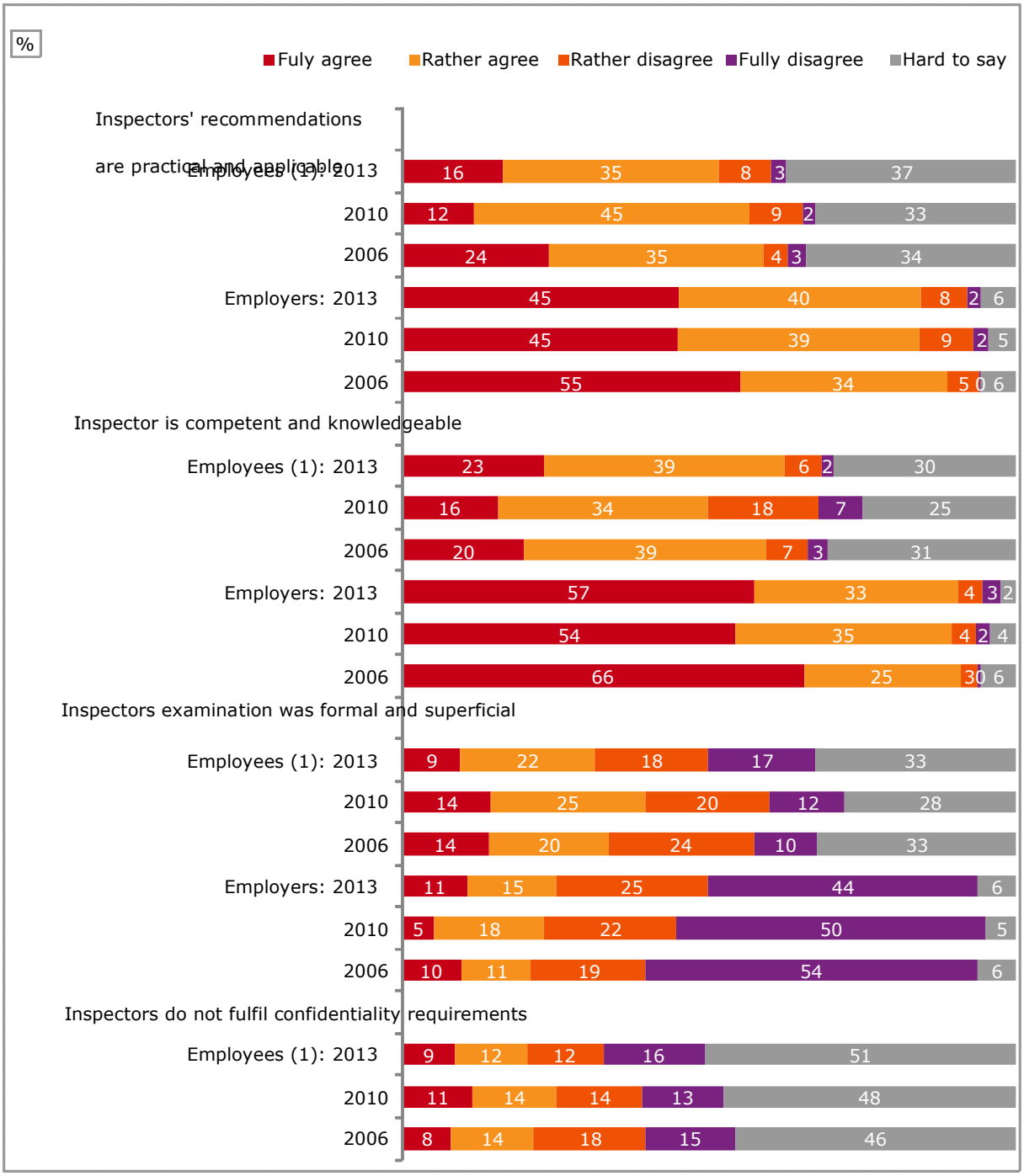
Region of the State Labour Inspectorate	The inspection carried out by inspectors had a formal character		The inspectors are competent and knowledgeable		The inspectors' advice is practical and applicable		Inspectors' attitude was practical and proper		Total number of points
	Number of points	Disagree (% of all respondents)	Number of points	Agree (% of all respondents)	Number of points	Agree (% of all respondents)	Number of points	Agree (% of all respondents)	
Zemgale region	2	79.5	1	99.7	1.5	91.5	1	96.2	5.5
Latgale region	1	82.1	2	93.8	3	85.9	2	95.3	8
Vidzeme region	4	64.3	3	91.6	1.5	91.5	3	94.5	11.5
Kurzeme region	3	75.1	4	92.3	5	78.4	5	83.7	17
Riga region	5	55.7	5	83.1	4	80.6	4	88.6	18

Note: basis – respondents, whose company has been inspected by the State Labour Inspectorate within the last three years, n = 521, no precise data are available for comparison in dynamics, because territorial division of the State Labour Inspectorate changed in 2008.
Source: Employers survey.

While employers generally assessed more positively the Vidzeme regional VDI and Kurzeme regional VDI, but more negatively – Riga Regional VDI and Latgale regional VDI in 2010, the situation is different in 2013. The highest assessment within this study is for Zemgale region and Latgale region. Similarly as in the previous survey, Riga has been assessed comparatively negatively, but the largest differences in dynamics can be observed in assessment of Kurzeme region. However, in general it must be remembered that administrative-territorial division has changed more or less during both periods of time, therefore precise situation analysis in dynamics is not possible. Assessing according to this principle in 2006, employers provided higher assessment to their cooperation with the State Labour Inspectorate in Easternvidzeme, Latgale and Southern regions, lower assessment was in Riga, Northernvidzeme and Kurzeme regions. Since Riga region has received constantly low assessment within all studies, detailed analysis is necessary for identification, if the problems are related to selection of the staff of the VDI regional inspectorate, frequent movements of staff, job management, capacity, management or this should be related to other – external factors, for example, the fact that companies' awareness regarding occupational health and safety requirements is lower in Riga region as well as compliance with these requirements, therefore assessment of activities of the controlling authority indicating on shortcomings of their business is more critical. Upon assessment of the situation regarding inspectors' being practical and proper, the situation should be assessed as rather good, and such an assertion has been confirmed by at least 83.7% of respondents in all regions. However, this means that employers have not been able to agree with such assertion in 16 visits of the VDI out of 100, and vast regional differences also must be indicated – while 83.7% of employers in Kurzeme provided positive assessment, this figure was 95.3% in Latgale region and 96.2% in Zemgale. This indicates that situation could be improved in separate regions.

Opinion of employees. Along similar lines employees were also asked to assess the work of the State Labour Inspectorate, with a special emphasis on issues related to confidentiality (see Figure 47).

Figure 47. Characterisation of the work of State Labour Inspectorate inspectors – opinion of employers and employees



Note: basis – employees with experience in cooperation with inspectors, in 2006: n = 141, in 2010: n = 202, in 2013: n = 1188, basis – employers, whose company has been inspected by the State Labour Inspectorate within the last three years, in 2006: n = 552, in 2010: n = 555; in 2013: n = 521.
Source: Survey of employees and employers.

In order to obtain general picture about employees' opinion on the activities carried out by the State Labour Inspectorate in different regions, taking into consideration all four abovementioned questions, as well as the results of employers survey regions of the VDI were arranged according to the employers' assessment. The best assessed region got 1 point, while the worst – 5 points. Then the

points were scored by each region: least total number of points indicates on better assessed region in the opinion of the employers, the highest number of points – on the worst assessed one (see Table 18).

Table 18. Employees' opinion on activities of the State Labour Inspectorate

Region of the State Labour Inspectorate	The inspection carried out by inspectors had a formal character		The inspectors are competent and knowledgeable		The inspectors' advice is practical and applicable		Inspectors do not fulfil confidentiality requirements		Total number of points
	Number of points	Disagree (% of all respondents)	Number of points	Agree (% of all respondents)	Number of points	Agree (% of all respondents)	Number of points	Disagree (% of all respondents)	
Zemgale region	1	34.7	2	67.5	3	52.3	3	29.2	9
Vidzeme regions	2	33.1	4	61.2	2	54.8	2	28.1	10
Kurzeme region	4	29.8	1	73.0	1	61.9	5	37.3	11
Riga regions	3	32.9	5	56.8	5	47.8	1	25.9	14
Latgale region	5	23.5	3	61.5	4	48.9	4	29.4	16

Note: basis – employees with experience in cooperation with inspectors, in 2006: n = 94, in 2010: n = 129, in 2013: n = 117.
Source: Employees survey.

While Vidzeme region had to be unequivocally mentioned as the best region according to the employees assessment with all indicators at the highest level in 2010, study of 2013 shows that situation has smoothed out among regions. The highest assessment within this study was for Zemgale, while the lowest – for Latgale region. Whereas, in 2006 employees gave higher assessment to the VDI in Easternvidzeme and Latgale region, assessment lower – in Northernvidzeme, Zemgale and Southern region. It is important to note that in comparison with 2006 assessment of Latgale regional inspectorate has significantly decreased in the opinion of employees, because assessment of this inspectorate was among the highest two in 2006, but in 2010 and 2013 it was the lowest.

In order to provide the VDI capacity for efficient solution of the employees' problems in regard of employer, it is of utmost importance that inspectors keep confidentiality thus maintaining employees trust, however, in 2010 25.3% of all respondents and in 2006 21.5% of all respondents fully or partially agree with the assertion that inspectors do not fulfil confidentiality requirements (employees having filed a complaint have been dismissed or reduced the salary). These results reveal negative tendency, since number of such respondents represent approximately 4% growth. Furthermore, significant regional differences can be observed. In 2010 failure to fulfil confidentiality requirements was most frequently indicated by the respondents in Kurzeme region (34.5%) and Riga region (31.1%), but in 2006 – in Easternvidzeme region (63.1%) and Kurzeme region (37.0%) respectively. At the same time large part of respondents (47.8%) have found it difficult to assess inspectors' confidentiality. In general, improvement of confidentiality indicators should be one of the issues requiring additional attention upon further improvement of the VDI.

Conclusions and recommendations

SUMMARY

While situation in the field of labour protection gradually improved in Latvia between 2006 and 2010, the situation has changed in general since 2010. Although positive changes can be determined in regard to several matters, situation regarding the key labour protection indicators generally has not improved. This means that part of the performance indicators of the policy set within the Guidelines for the Development of the Labour Protection Field 2008-2013 will not be achieved.

Explanations

Although number of the labour protection indicators analysed within the Study shows gradual improvement of the situation (for example, growing satisfaction of employees with work and working conditions, growing self-assessment of employers regarding the compliance of working environment with requirements, decrease of illegal employment, growing awareness of employees regarding labour protection), then neutral (no development) or negative development tendencies can be observed within dynamics of other significant indicators. For example, in relation to the policy result set within the Guidelines for the Development of the Labour Protection Field 2008-2013 – "To improve working conditions in the Latvian companies and decrease number of the fatalities of workplace accidents (per 100 000 employees) by 30%" – one must conclude that, most likely, the objective will be achieved in 2013. However, the total number of workplace accidents with fatal outcome has increased during the recent years, and it is still on average twice higher than in other Member States of the EU. Whereas, in relation to the performance indicator set within the Guidelines for the Development of the Labour Protection Field 2008-2013 – "Risk assessment has been carried out in full and in good quality (including development of the plan of preventive measures) in 70% of the companies representing the dangerous sectors and 55% (in 2006 – 24%) of all companies", the Study shows that this will not definitely be achieved. Results of 2013 show that situation has slightly decreased (after the improvement determined in 2010) – occupational risk assessment has been carried out in full in less than 30% of companies. There are several explanations for such a situation; however, this is mainly related to changes in entrepreneurship field after the economic crisis – new employers enter the labour market, and mostly they are not sufficiently aware of the legal requirements in relation to working environment, and the structure of companies also changes (proportion of small companies and micro-enterprises grows; this has been highlighted as a risk group in relation to the compliance with legal requirements of labour protection in the previous studies).

4.1 Compliance of legal requirements

Conclusion

Legal requirements regarding labour relations and legal labour relations are not followed more frequently in following groups of companies (to be considered risk groups):

- *in small companies (micro-enterprises) (and in companies founded as micro-enterprises or paying the micro-enterprise tax);*
- *in companies located in Riga and Zemgale region;*
- *in companies with following key performance areas: fisheries, agriculture, forestry, manufacture of paper and paper products, polygraphy and manufacture of textile and clothing products and manufacture of basic metals, fabricated metal products (in relation to labour protection);*
- *in companies with following key performance areas: agriculture and forestry, manufacture of paper and paper products, polygraphy and water supply, sewerage and waste management (in relation to legal labour relations);*
- *companies of private sector;*
- *in companies, where envelope salaries are paid every month and/or sometimes;*
- *in companies with dominating local property rights (in relation to labour protection);*
- *in companies founded between 2011 -2013 (in relation to labour protection).*

Explanation

The abovementioned groups of companies are basically the same as were identified within the previous studies, and basically separate sectors are affected by slight changes. The most significant problems with compliance with the labour protection requirements in the recent years can be determined in the companies founded as micro-enterprises or paying micro-enterprise tax. Most likely, employers of these companies are not sufficiently educated in the field of labour protection or they consider that there are no occupational risk factors in their companies, and labour protection requirements do not apply to them. A tendency has also increased during the recent years, that socially active and organized companies (members of any employers' organization, for example, LDDK, Latvian Chamber of Commerce and Industry, associations of sectors etc.), as well as that the companies, where the employees are involved in social dialogue, betters comply with the labour relations requirements.

Recommendations

- During the planning of priorities of the VDI activities and thematic inspections, the following groups of companies must be taken into consideration, especially in relation to the identified sectors and size of the companies;
- Planning the informative activities in the field of labour protection, activity must be more focused to the abovementioned risk groups, for example, when planning informative materials especially for micro-enterprises;
- Paying of special attention to various tools that can be used by the directors of companies at any appropriate time (micro-enterprises much more frequently have indicated on lack of time as an obstacle), therefore interactive tools like free programmes based in the virtual environment intended for assessment of occupational risk should be especially supported for further development;
- Planning of higher number of regional activities, especially in cooperation with the organizations of small and medium size companies, especially in the risk sectors (for example, by participating in the events organized by these organizations, sending information to their members and other activities).

Conclusion
Companies, where envelope salaries are paid at least partly, should still be considered as companies of special risk group not only in the field of legal labour relations, but also in the field of labour protection and should be set as priority.

Explanation
As in previous years, study of 2013 also shows that companies, where at least part of the salary is paid in envelope, still have problems with labour protection issues – assessment of occupational risk factors, frequency of accidents, failure to use "sick leaves", failure to inform and train employees, various conflicts in the work place, failure to use vacations etc.

Recommendations
Planning the VDI inspections in the specific companies – both during thematic inspections and routine inspections, priority selection must apply to the companies, where the employees are paid salaries lower than the average in the sector or minimum salaries (obtaining these data from the State Revenue Service), as well as the identified risk sectors must be taken into consideration (specified in the previous conclusion).

Conclusion
There are still differences regarding compliance of labour protection requirements and provision of various measures between employees and self-employed persons – companies implement more labour protection measures than self-employed persons (for example, in relation to purchase of protective clothing, provision with fire-extinguishers etc.), and this can lead to increase of the number of accidents in the future, where the self-employed persons can suffer, as well as to increase of the number of occupational diseases among self-employed persons.

Explanation
Number of self-employed persons kept growing during the recent years, and this should be considered a positive trend within assessment of the development of entrepreneurship and economics. However, results of the study show that self-employed persons follow the labour protection requirements at lesser extent than employees, especially in relation to purchase of protective clothing or individual protective equipment. Furthermore, self-employed persons often use annual leave, which is not longer than one week. All these aspects in general cause increased risk of accidents and health disorders (including occupational diseases). Taking into consideration that this group of persons can expect significantly lower social guarantees in case of workplace accident or occupational disease, this group of employees will be in very unfavourable situation in the old age. However, a positive trend can also be observed, because, according to the opinion of self-employed respondents, compliance with labour protection requirements among them has improved in 2013. This could reveal that the self-employed persons have started to understand better that labour protection requirements apply to them, too, and that taking care of their occupational safety and health is the duty of the employed person himself/herself. It is possible that practice of employing individuals as self-employed persons is being implemented in separate sectors (for example, in forestry, construction etc.), therefore these employees, formally being self-employed persons, make judgments regarding changes in the company in general.

Recommendations
- To assess opportunities to change the legal requirements providing that employing of self-employed persons is not possible in separate dangerous sectors in order to avoid emergence of fictitious "self-employed persons" and achieve the point that the employers would be obliged to fully provide compliance with labour protection requirements for all employees. Forestry and construction should be mentioned as

high risk sectors, where significant coordination of works, as well as several good quality labour protection means (not always purchased by the self-employed persons) are necessary for provision of safe working conditions;

- To continue previous practice, to aim informative materials and activities in the field of labour protection also at the occupational risk factors and sectors thus stimulating development of understanding both among employees and self-employed persons. This allows improvement of knowledge of self-employed persons without investing of additional state resources for development of special informative materials for this specific target group. More active preparation of materials right in the dimension of the most dangerous sectors (for example, forestry) is recommended formulating short and simple explanations understandable to "simple" workers.;
- Recommendation to perform changes in social insurance system against occupational diseases and occupational accidents is still topical, including joining opportunity of self-employed persons. Additional explanatory measures are recommended in order to motivate self-employed persons to join this insurance system; possibly- by publishing real life situations, when status of self-employed person has resulted in obtaining of incomplete social guarantees.

Conclusion

In regard of violations of the legal labour relations, also in 2013 the risk group, most frequently working without written employment contract, consists of men aged from 18 to 35 years. Whereas, in regard of violations of the legal labour relations young people as a risk group is more frequently exposed to such occupational risk factors that under long-term unfavourable impact can lead to development of serious, refractory and even irreversible health disorders. Furthermore, young people are less frequently provided with information regarding the unfavourable impact of occupational risk factors on health. Also, compulsory health examinations are less frequently performed to youth than to older people.

Explanation

Analysis of the data of study shows that young men form the most significant risk group, where the respondents have more frequently admitted working without written employment contract. This could be explained in various ways, for example, this group or employees is frequently employed in high-risk sectors (for example, construction, agriculture, forestry) and performs physically hard work (this is confirmed by the most frequent occupational risk factors mentioned within this age group), as well as, possibly, these employees are less informed and less aware of the long-term impact of possible occupational risk factors, since they do not feel any at the moment. This group or employees also, most likely, is less informed about the legal aspects of the legal labour relations and has less frequently faced the application of social guarantees (for example, they have less frequently used paid sick-lists), therefore they underestimate the advantages provided by written employment contract. Data of study show that complaints regarding occupational health disorders occur less frequently among young people, however, the fact that nearly 10% of young people in the age group from 18 – 24 already have complaints of this sort, should be assessed as alarming. Worse understanding among youth and young people could be explained by so far insufficient training on matters regarding labour protection both in the vocational schools and secondary schools and the institutions of higher education. However, in general awareness of young people has improved in several fields. Analysis of the information available in social networks leads to conclusion that currently studying young people frequently indicate on the "boring" manner of teaching of matters regarding labour protection. Also, analysis of the participant lists of previous VSAA Preventive measure plan leads to conclusion that teaching staff of the institutions of higher education very rarely attend public informative labour protection measures, therefore they can be prevented from obtaining of up-to-date information on the topicalities of sector and available informative materials, including

auxiliary materials containing visual information.

Recommendations

- Commenced activities aimed at exciting training regarding working environment and its impact on health should be continued in the future, as well as the activities aimed at general matters regarding safety and health (for example, by continuing the commenced teacher training, continuing the development of labour protection games and modules previously performed by the National Centre for Education etc.), highlighting application of modern and interactive teaching methods and materials, providing also appropriate training to the pedagogues.
- Separate training for teachers of home economics and manual training is recommended, teaching them on how to integrate in exciting manner labour protection requirements in their subjects of studies, acquiring simultaneously both knowledge and skills, as well as safe work techniques. It is recommended to organize such trainings in cooperation with project groups of interest-related education organized by various youth and cultural organizations (for example, carpentry etc.).
- Commenced activities aimed at the students of vocation schools must be definitely continued (for example, "PROFS", "Safe school" etc.) in cooperation with social partners and large companies of the specific sectors, within the frame of which significant attention has been paid to the education of teachers, especially in the field of gaining practical experience regarding operation of efficient and contemporary labour protection system in various companies of Latvia.
- Greater focus should be aimed also at the training of the teaching staff of the institutions of higher education on how to teach labour protection related matters in exciting manner, as well as on how to use prepared materials regarding labour protection suitable for the audience of young people (for example, posters, NAPO films etc.). Organization of separate seminary to the teachers of the corresponding profile from the institutions of higher education is recommended.

Conclusion

Significantly better situation can be observed in companies inspected by the VDI, however, improvement of the competency and knowledge of inspectors is necessary, as well as change of approach of the inspection planning of the companies, concentrating on the inspection of identified companies of risk group during the thematic inspections.

Explanation

Results of the study confirm that compliance of the companies with legal requirements is related to the inspections carried out by the VDI, however, at the same time it must be determined that during the recent years greater focus has been made on older, medium sized and large companies, and not on the identified risk groups – micro-enterprises and small companies founded during the last three years. At the same time inspectors do not carry out the informative work during the visits offering informative materials of different kind – volume of such support has significantly decreased in comparison with the study of 2006. Another tendency determined within the study shows that supervision of the VDI over companies differs significantly in various regions (proportion of the inspected companies differs several times – from 22% in Riga to 72% in Latgale); and this confirms that selection of the companies to be inspected is not organized in sufficiently advised and coordinated manner. Assessment of employers regarding competency of inspectors and possibility to apply their recommendations has not improved in the recent years.

Recommendations

- Planning principle of the VDI regarding inspections of companies should be changed focusing on the identified risk groups (small companies, companies representing risk sectors, new companies, companies that are not members of the associations of

sectors or other employers' organizations), simultaneously providing informative support to these companies (offering informative materials, informing about the resources available on the internet, for example, about the resources available on the internet with special informative materials).
- Detailed study regarding work plan of the VDI in Riga must be carried out in order to identify, whether the problems are related to the selection of staff of the regional inspection, high staff turnover rate, job management, capacity, company management or other – external factors, and to smooth out the number of inspected companies in the whole territory of Latvia.

Conclusion

Labour protection specialists do not have unanimous opinion whether employers follow requirements of legal documents; and specialists have very different opinions on requirements of specific legal documents regarding labour protection.

Explanation

In relation to high number of legal documents and their requirements, the participants of focus group discussions have absolutely opposite opinions and understanding. The highest uncertainties and difference of opinions can be observed in relation to the legislative requirements related to specific requirements in regard of separate occupational risk factors (for example, chemical substances, micro-climate etc.), requirements regarding carrying out of occupational risk assessment, compulsory health examinations, whereas less differences occur on such matters as use of safety signs. Different opinions can be observed also in relation to the belonging of the companies to the dangerous sectors and training and re-certification of the labour protection specialists. On should also conclude that generally labour protection specialists are not sufficiently aware of national level topicalities in the field of labour protection, since several assumptions on already changed matters have been made (for example – that VDI explains only requirements of legislative documents in their seminaries, but this was quit many years ago etc.).

Recommendations

- Organization of specialized seminaries for senior labour protection specialists and competent specialists is necessary focusing on the identified problems, as well as informing on general situation in the field of labour protection and topicalities.
- Preparation of newsletters intended for labour protection specialists must be continued (for example, Labour protection news), providing information on the current and planned nationwide events in the field of labour protection.
- VDI and the Ministry of Welfare must organize regular meetings with the representatives and competent specialists of the competent institutions of labour protection informing on topical changes and planned events, as well as hearing opinion and recommendations of these specialists (possibly – with special questionnaires.

4.2 Occupational risk factors and their assessment

Conclusion

No significant changes in relation to the distribution of occupational risk factors in Latvia in 2013 in comparison with the previous studies have occurred – psychoemotional factors are still the most widespread (lack of time, overtime work etc.), ergonomic occupational risk factors (work with computer, movement of heavy objects, work in awkward posture, repetitive movements, as well a physical occupational risk factors (draught, working outside under different weather conditions).

Explanations

In contradistinction of the surveys of previous years, in 2013 employers and employees most frequently have mentioned various factors as occupational risk factors, i.e., employers have mentioned following factors: work with computer, aggregated working time, working in awkward posture, distant work, teleworking, working outside under different weather conditions; whereas employees have mentioned following factors – direct contact with individuals, repetitive movement, lack of time, movement of heavy objects, draught. In its turn it must be additionally noted that among the traditional risk factors micro-climate and chemical substances, including dust (and including organic thinners, wood and sour dust, welding spray, manganese etc.) are considered very significant occupational problems; and this is shown also by more frequent incompliance of these factors with the recommended values according to the laboratory measurements.

Recommendations

Continuation of the informatively – educational work is necessary, focusing on:

- Regional seminaries to notify wider range of the potentially interested persons, especially from micro-enterprises and small companies, thus obtaining opportunity to address these companies directly through the social media and electronic mail. Focusing is necessary to the regional cities, where no similar events have taken place so far, as well as repetition of seminaries of various topics in other cities.
- Integration of the topics of regional seminaries with the topics provided by the European Agency for Health and Safety at Work (for example, the campaign of 2014 “Healthy workplaces defeat stress”), involvement of regional VDI institutions, as well as local governments and entrepreneurs’ organizations in organization of the events.
- Organization of specialized and detailed seminaries for the senior labour protection specialists and specialists from the competent institutions of labour protection, focusing on the labour protection problems in Latvia identified during the study (for example, impact risk of psychoemotional occupational risk factors, combined impact of ergonomic risks, assessment of the risk of combined impact of chemical substances etc.).
- Analysis of the experience of other countries in preparation of various informative materials while continuing preparation of various level and type informative materials to provide interest from various focus groups.

Conclusion

General situation regarding the occupational risk assessment in comparison with data of 2010 has slightly decreased in Latvia, and it still should be assessed as dissatisfactory, because full occupational risk assessment has been carried out only in every third company. Furthermore, number of companies, where nobody else has participated in this process, except for the risk assessor himself/herself, remains constant, and this suggests that these assessments have been formal. Situation in relation to the preparation of preventive measure plan after risk assessment has also decreased.

Explanation

Survey of employers reveals that number of the companies, where occupational risk assessment has been carried out in full has slightly decreased in comparison with 2010 (15% - in 2002; 22% - in 2006; 31% - in 2010; 29% - in 2013). However, taking into consideration the legislation

requirements specifying that occupational risk assessment has to be carried out in every company at least once a year since 2002, the situation should be assessed as really dissatisfactory. It must be noted that these indicators had gradually improved so far, but the survey of 2013 reveals that:

- no specific employee having good knowledge of the specific work is being involved in the occupational risk assessment (situation has decreased from 60% in 2010 to 67% in 2013);
- no specific plan including specific measures for improvement of working environment and risk reduction is being drawn up after the occupational risk assessment (after the improvement identified in 2010, when the plans of preventive measures after occupational risk assessment were drawn up in 65% of all companies, this indicator has decreased again in 2013 showing that such a plan is being drawn up only in 62% of all companies).
- no trusted representatives of employees are being involved in occupational risk assessment (situation has decreased from 91% in 2010 to 93% in 2013).

Recommendations

- Promotion of application of available and user friendly risk assessment methods both by informing about them employers and specialists, as well as organizing training events regarding their use. It is especially recommended to promote popularity of the risk assessment programmes available on the internet (for example, OiRA programme developed by European Agency for Health and Safety at Work or the programme "Occupational risks" developed with the support of ESF project "Practical application of the legislation acts regarding labour relations and labour protection" (No. 1DP/1.3.1.3.2./08/IPIA/NVA/002)).
- Provision of distribution of the good practice examples demonstrating connection between good quality occupational risk assessment and efficient operation of company.
- Demonstration of practical examples on various forms of involvement of employees (except for the traditional trade unions or officially elected trusted persons) and on how this may affect the occupational risk assessment, timely identification and efficient solution of problems and risks preventing potential losses and health risk.

Conclusion

Proportion of employers having used laboratory measurements has slightly grown; this should be assessed as a positive trend and shows on better quality of occupational risk assessment process; however, there is following explicit trend - better quality occupational risk assessment is more frequent in large companies.

Explanation

Legislation regarding compulsory health examinations entered into force in 2009, and periodicity of these examinations is frequently directly related to the level of hazardous factor (for example, in cases of noise, vibration, dust, chemical substances and other), therefore objective assessment of many occupational risk factors is used by growing number of companies. Also in 2013, according to the survey of employers, a tendency can be observed that laboratory measurements of working environment are not carried out by the same companies that avoid occupational risk assessment, i.e., small companies (especially – companies with 1-10 employees and new companies). Constantly low number of the laboratory measurements of working environment should be related to the low awareness level of employers and high costs. Data of the Study also show that measurements are significantly less frequently in small companies, possibly, due to the fact that this group of companies is significantly less frequently controlled by the VDI, as well as because of the fact that companies tend not perform measurements, but rather invest in other labour protection measures instead (for example, compulsory health examinations). Increase of the performed measurements has been possibly promoted also by the fact that previously organized informative seminaries included topics on opportunities of the specific sector or risk factor identification and

specific examples from the workplaces. Such information is included also in the prepared informative materials.

Recommendations

- Additional informatively explaining work is necessary aimed at explanation of the role of laboratory measurements in occupational risk assessment to the employers, as well as training of labour protection specialists on this topic.
- It would be useful to place a programme on any of internet sites that would help to calculate the compliance of the exposition to the legislation data (for example, calculation of exposition index, compliance of vibration with the thresholds of vocational exposition etc.), as well as united list with necessary activities in case of increased risk (for example, periodicity of compulsory health examinations, indications on necessity to reduce the particular risk etc.).
- Implementations of support projects for employers, for example, in assessment of chemical risk, similarly as within *de minimis* project, providing consultations on the procedure of chemical risk assessment, analysing safety data sheets, measurement results and their inclusion in the occupational risk assessment etc.

Conclusion

Results of laboratory measurements show that the risk factors, thresholds of which are more frequently exceeded have significantly changed during the last three years. If previously most frequently they included physical occupational risk factors, then during the last three years proportion of chemical occupational risk factors has grown with remaining incompliance of the physical occupational risk factors with the legislation values. Tendency also remains that results of many measured risk factors exceed the allowed thresholds.

Explanation

Analysis of the database of Hygiene and Occupational Diseases Laboratory of the Institute of Occupational Safety and Environmental Health of Rīga Stradiņš University shows that following parameters of working environment do not comply with the legislation requirements or recommended values (thresholds) most frequently: organic thinners (83%), wood and sour dust (78%), full body vibration (76%), hand – arm vibration (72%), manganese (60%), relative air humidity (58%), noise (53%), welding spray (50%), air temperature (49%), abrasive dust (36%) and other. Changes in division of the occupational risk factors incompliant with the requirements more frequently could be partly explained by the impact of the activity "Granting of *De minimis* support" of the ESF project "Practical application of the legislation acts regarding labour relations and labour protection" (No. 1DP/1.3.1.3.2./08/IPIA/NVA/002), when physical occupational risk factors were measured for free in the companies, simultaneously foreseeing measurement of chemical substances in the plans of preventive measures. Possibly, it can be also explained by slight improvements in the occupational risk assessment quality (due to the training of labour protection specialists, employers and employees), as well as provision of additional information regarding risks caused by the chemical substances (for example, regional seminaries on risk caused by chemical substances, informative materials, inclusion of safety matters of chemical substances within the content of separate informative seminaries and such). Due to the abovementioned aspects measurements are basically performed in the most dangerous workplaces, wherewith incompliance of specific factors with the thresholds is being identified more frequently.

Recommendation

- Various informative activities must be continued in order to promote raising of

understanding, in which workplaces the measurements of occupational risk factors must be performed, for example, by performing detailed training of labour protection specialists and competent specialists on particular occupational risk factors, including their assessment, providing that measurements are performed in workplaces, where necessary, so that the specialists could determine the necessary measures more precisely.

4.3 Training and information

Conclusion

Society is still insufficiently aware of the requirements of Labour Protection Law and legislation requirements regarding occupational risk assessment and other requirements, although during the last 10 years a number of informative explanatory materials have been issued in Latvia. However, it must be admitted that awareness level of the employees has slightly grown in comparison with the data of previous studies.

Explanation

Information of the employees in their workplaces regarding various labour protection matters has grown during the last three years (from 89% of instructed employees in 2010 to 94% in 2013). Whereas, employers have indicated that in 38% of cases no-one of employees has been exposed to occupational risk factors, but just 18% of employers indicated that all employees have been exposed to occupational risk factors at 100%, and this shows that understanding on labour protection matters is low. Understanding and awareness of employers is still low, despite of the informative activities of the recent years, including activities in the social networks and high number of new materials. Possibly, range of the informative materials is currently rather wide, but easy and intuitive finding of these materials is burdened.

It must be noted that managers of small companies and new companies, as well as self-employed persons form the risk groups that need informative support upon commencement of commercial activity (like materials, seminaries, courses and other activities).

Recommendations

- Continuation of the commenced informative activities, aiming them at the widest audience possible (preparing specific materials for particular target audiences), as well as providing easier access, creating a united website dedicated for labour protection matters summarizing all the information regarding labour protection in user friendly and clear format.
- Preparation of materials requiring more detailed involvement of users is necessary, for example, games, tasks on the internet requiring action from the used (for example, recognition of dangerous situations in pictures clicking on spots where various violations are obvious and such). Creation of such a website was commenced at the end of 2013.
- Establishment of cooperation with the websites that employers are obliged to visit (for example, internet banks, Register of Enterprises etc.).

Conclusion

Financial resources for the preventive measures assigned from the VSAA special budget are used more efficiently than during the previous studies.

Explanation

Systematic and planned preparation of materials has been commenced since the carrying out of previous study, as well as review and updating of the informative materials developed in the previous years, providing information on the most dangerous sectors and key risk factors. Preparation or review of nearly 200 various labour protection materials is expected until the end of 2013. Also, further education system of labour protection specialists has been established and

operates including various seminaries and providing available of their materials on the internet. Data of the study show that informative materials and information obtained on various websites is still the key information source to the employers.

Recommendations

- Establishment of united website dedicated for labour protection matters summarizing all the information regarding labour protection in user friendly and clear format (commenced at the end of 2013).
- Expansion of the range and type of informative materials by preparing them as available to various audiences as possible.

4.4 Accidents, occupational diseases and related costs

Conclusion

Total number of workplace accidents registered in Latvia by the VDI has been decreasing during the recent years, while number of accidents with fatal outcome slowly decreases in longed term. Common structure of the registered accidents has changed and currently reflects the real risk of specific sectors. Total number of registered accidents is still significantly lower than in other member states of the EU, while the number of accidents with fatal outcome is still higher, and this indicates that all workplace accidents are still not being registered.

Explanation

Total number of accidents registered by the VDI has resumed growing after decrease in 2009 and 2010. Most likely, this is related both to the growth of economic activity (this is confirmed by the fact that according to the survey of employees number of worked hours and overtime hours is growing) and to the simplification of accident registration procedure and awareness of employers and employees of legislation requirements in regard of the workplace accidents and social guarantees. Data of study confirms also the fact that slight improvements can be observed in the field of accident registration (number of registered accidents has grown, number of hidden accidents has decreased), because, analysing the structure of sectors it is obvious that basically number of registered accidents grows in sectors like manufacturing, power manufacturing and construction, while the growth in, for example, health and social care sector is slower. Wherewith, while number of accidents in the health and social care sector was significantly higher than in construction sector or as high as in manufacturing prior to crisis, then currently structure of accidents better reflects the real risk of the particular sectors. At the same time, it is obvious that, for example, in forestry and agriculture – sectors with very high accident rates in other member states of the EU – number of registered accidents is very low (lower than the average number of registered accidents). Data of study shows also that part of the accidents is still being hidden. Accurate level of non-registration is hard to determine, because various data obtained during the study provide different information, for example:

- according to the employers' survey, 59% (in 2010 – 79%) of all employers have reported the VDI on workplace accidents having occurred in companies (institutions) managed by them within the last 3 years;
- according to the employees' survey, employers reported only on 51% (in 2010 – 55%) of all accidents.

Recommendations

- During planning of the thematic inspection of the VDI companies operating in high risk sectors with no registered accidents should be selected as risk groups instead of companies, where many accidents are registered.
- Further additional activities should be planned (seminaries, informative materials, animation films or videos etc.) on prevention of accidents and necessity of registration of accidents. In relation to the employers' audience such information activities should be

basically aimed at recognition of almost actual accidents and implementation of preventive measures (series of regional seminaries on detection of almost actual accidents was commenced in 2013). Information on costs of accidents should also be included; this might stimulate activity of employers in reduction of accident risks. Information intended for the employees should be aimed both at detection of nearly actual accidents and possible failure to receive social guarantees in case of not reporting on accidents.

- Planning of informative seminaries on the groups or causes of accidents widespread or underestimated (for example, on road traffic accidents, working under influence and such) – such activities have been commenced at the end of 2013 and they should definitely be continued.
- Provision of user friendly auxiliary mean for the calculation of the costs of accidents that would allow the employers to verify the economic advantage of prevention of the accident causes (by establishing it as instrument conveniently available on the internet).

Conclusion

Number of the occupational patients and occupational diseases registered for the first time in Latvia has decreased and become stable after the peak indicator in 2009; however, this can be explained not only by the improvement of working conditions or economic situation, but also by improvement of diagnostics and changes in the social guarantee system of the occupational patients.

Explanation

According to the experts, further stabilization of the level of occupational diseases can be expected within the forthcoming years, possibly with little fluctuations of the number of registered occupational diseases and decrease within the forthcoming 5-10 years. Rapid growth of the occupational diseases up to 2009 and especially in 2008 and 2009 could be possibly better explained by the situation caused by the economic crisis, when employees suffering from health disorders caused by the working environment registered the occupational diseases developed within the last 10-15 years in large quantities. Upon improvement of the economic situation, limitations of the volume of social guarantees of the occupational patients, as well as reduction of capacity of the Centre of Occupational and Radiation Medicine, number of the registered occupational patients has decreased during the recent years. However, in the opinion of experts, number of the registered occupational diseases, most likely, will not decrease rapidly, but will even slightly increase instead. This is related to several considerations – average duration of the development of occupational diseases exceeds 10 years (wherewith registration of the occupational patients previously affected by the working conditions will continue also during the forthcoming years); - currently levels of many risk factors in the working environment are still high enough (consequently there will be development of new occupational diseases); - possibly, current structure of occupational diseases does not reflect the real situation in regard of the registered occupational diseases (for example, number of occupational patients – women has grown during the recent year (exceeding the number of occupational patients – men by 1.76 times), which is completely opposite trend to the common situation of the EU; - frequency of occupational diseases in separate sectors does not reflect risk level of the sectors). Similarly, data of study indicate that number of registered occupational diseases per each therapist of occupational diseases differs even 2-4 times in different regions of Latvia, wherewith, as soon as this difference is smoothed out, number of registered occupational diseases could slightly increase.

Possible rapid growth of the registered occupational diseases will be obstructed in its turn by the current capacity of the registration of occupational diseases (further reduction is expected in the future, since every year one or two new therapists commence postdoctoral practice in the field of occupational diseases), as well as by the fact that diagnostics guidelines for various occupational diseases (for example, diseases of musculoskeletal and connective tissue system, diseases caused by noise etc.) have been developed more precisely during the recent years, and this prevents therapists from as free interpretation of the diagnosis of the occupational disease as before. Additionally, it is

expected that confirmation of the diagnosis of the occupational disease will become more complicated, for example, number of employees with occupational background related to several countries, including countries outside the EU, will grow, therefore the number of legal disputes on responsibility of the insurance system of each of the countries will also grow.

Recommendations

Recommended activities are still related to the improvement of timely diagnostics and registration system of occupational diseases. Following recommendations could be mentioned as the most important ones:

- Capacity of the Centre of Occupational and Radiation Medicine of P.Stradiņš Clinical University Hospital must be strengthened and increased, and also development of other occupational therapist commissions in the regions of Latvia must be stimulated.
- Translation of the European Commission's guidelines for diagnostic criteria of occupational diseases into Latvian ("*Information notices on occupational diseases: a guide to diagnosis", 2009*), posting in into easily available internet resources (including the website of the Latvian Association of Occupational Therapists www.arodslimibas.lv), in order to promote education and awareness of therapists and application of unified criteria, as well as for the development of practical recommendation for the occupational health and occupational disease therapists on the grounds of these guidelines and provide detailed training in the field of diagnostics and treatment of the most widespread occupational diseases.
- In cooperation with the Ministry of Health matter on necessity to provide direct accessibility of occupational therapists, i.e., access to the occupational therapist without referral issued by the General Practice.
- Stimulation and provision of the occupational therapists' opportunities to involve in the prevention and treatment process of the work-related health problems (for example, increase of the role of practical training, change of the certification conditions by determining compulsory participation in risk assessments etc.), instead of simple performance of compulsory health examinations, because consultation of occupational therapists can provide a valuable investment in the recovery process of the employees.
- Understanding of employers regarding higher productivity of healthy employees must be stimulated, including understanding on the role of employers themselves within this process, for example, by providing information of employees that information of therapist on the health problems is crucial in order to avoid deterioration.

Conclusion

Rate of the frequency of occupational diseases caused by various ergonomic occupational risk factors grows very rapidly in Latvia, as well as proportion of such diseases in the common morbidity, exceeding half of all the registered occupational diseases. Number of health disorders and occupational diseases caused by psychoemotional risks also gradually grows, furthermore, taking into consideration the development tendencies of this group of diseases within the EU, more rapid growth within the next 5 – 10 years can be expected also in Latvia.

Explanation

In Latvia, as well as anywhere else in the world, changes within the structure of most frequently diagnosed occupational diseases can be observed – morbidity with the occupational diseases of musculoskeletal and connective tissue system has rapidly grown within the last 13 years, reaching 57% of the total number of all registered occupational diseases per year in 2013. The fact that such a trend was expected and that further growth of the occupational diseases of this group is foreseeable was confirmed also by the results of employers' and employees' surveys on the most frequent risks of the working environment, which indicates on increasing spread of ergonomic risks

and gradual decrease of traditional risk factors. This is confirmed also by the fact that even among young employees (aged 18 – 24 years) 10% of the respondents indicate on health disorders caused by working environment (60% of them consist of the diseases of musculoskeletal and connective tissue system). Diseases of musculoskeletal and connective tissue system form a topical problem also across the Europe.

Recommendation

Taking into consideration the wide spread of ergonomic risk factors and opportunities to affect the consequences of health disorders caused by such factors, recommended measures refer both to the prevention and early diagnostics of the diseases of musculoskeletal and connective tissue system and also to the promotion of understanding of employees, employers and labour protection specialists.

- In relation to the prevention and early diagnostics it is recommended to continue detailed training of the occupational therapists in the field of prevention, diagnostics and treatment of the most widespread diseases of musculoskeletal and connective tissue system (Latvian Association of Occupational Therapists has commenced such training), including also matters on specific preventive measures in working places (for example, by demonstrating specific ergonomic auxiliary means, as well as preparing special materials on ergonomic improvement opportunities in working places.
- In relation to the promotion of awareness and understanding of the employees and employers, organization of various educational activities must be continued, diversifying both types of such materials (for example, creating animation films or videos etc. additionally to the posters and similar materials) and way of distribution (for example, with wider use of social media etc.). One of the most important courses, where the training must be continued, is health promotion in workplaces (for example, organizing regional seminaries, involving local companies – examples of good practice and other).
- Cooperation with the employers' non-governmental organizations must be continued, for example, with the Institute for Corporate Sustainability and Responsibility, using the opportunities provided by these organizations to address employers, as well as summarize the good examples of Latvian companies regarding improvements of working environment (such a cooperation is already in progress, existing examples of companies have already been presented in several seminaries, however, frequently the same companies share their experience).
- In relation to the labour protection specialists, significantly larger attention must be paid both to the training of these specialists adding more detailed information on early signs of occupational diseases and complaints of the employees, as well as preventive and health promotion measures.
- Calling of the companies, especially small companies to share their innovative experience in the improvement of working environment and conditions, especially – searching for simple and as cheap solutions as possible (for example, explaining assistance of physiotherapist via Skype).

Conclusion

Number of costs from the Special Budget for workplace accidents of the State Social Insurance intended for medical, social and vocational rehabilitation has begun to grow during the last years; however, majority of these costs should still be related mainly to the treatment and medical expenses caused by the consequences of working environment (workplace accidents and occupational diseases); however, no data on cost relation to the sectors or particular diseases of types of traumas are available.

Explanation

Number of the paid medical, social and vocational rehabilitations has begun gradually growing

within the last seven years, although percentage is still very low (less than 10% of the total number of costs per year), while number of treatment costs and patient fees slightly grows. Data on specific costs are not available, for example, regarding which position costs more – occupational diseases or treatment of accident and rehabilitation as well as on which sectors' occupational diseases or accidents cause the highest losses or treatment of which occupational disease is the most expensive one. Also, analysis of the costs of workplace accidents and occupational diseases is not function of the VSAA as of 2011; therefore currently no data are available, for example, to the VDI to provide more successful planning of thematic inspections in the sectors causing the highest costs.

Recommendations

- It is recommended to evaluate opportunities of automatic (computerized) summarization and analysis of the costs on the most significant expenditure items and sectors, as well as to prepare publicly available review on costs of such kind across the country. This would allow more successful planning of all kinds of preventive (training for therapists and labour protection specialists, thematic training for employers, informative materials etc.) and control measurements (for example, thematic inspections of the VDI) providing economic justification of such planning.

Conclusion

No nationwide system for regular analysis of labour protection system has been developed defining specific indicators that would allow make judgments on changes of the situation. No information on situation in the field of labour protection, full and summarized on regular basis, is currently available (except for the annual reports of the VDI), and the worst situation is in regard of data on various labour protection matters (for example, number of applications for working with asbestos, execution of construction works etc.), occupational diseases, as well as the performed studies and their results; situation is slightly better in regard of the accidents.

Explanation

Even the information included in the annual report of the VDI, although rather complete, exceeds the recommended volume and still contains no sufficient amount of analytic information that could possibly describe the situation development in dynamics. In relation to the data analysis of occupational diseases, analysis provided by the VDI differs from data provided by the Centre of Occupational and Radiation Medicine of P.Stradiņš Clinical University Hospital due to various reasons and do not contain sufficient amount of detailed information for the analysis in dynamics in various dimensions. Also, no data are available without special demand regarding various labour protection measures employer must provide information (for example, applications for execution of construction works or working with asbestos etc.) and information regarding which is available in the VDI, but it is not being summarized, since it is not required by the corresponding Regulations of the Cabinet of Ministers. Another topical problem – information on various studies regarding labour protection performed in Latvia is not always available (for example, on studies supported or carried out by the Latvian Council of Sciences and other institutions), including the written doctoral and master's theses that could provide information on research of many specific labour protection matters in Latvia, including review of the data on available literature. Social partners also carry out their studies (for example, LBAS), results of which are available on their website, but not mentioned.

Recommendations

- Corresponding improvements in the annual report of the VDI should be planned in the future, possibly, by preparing two documents – one as the specified institutional annual report, the other one – as more analytic document added with detailed information.
- Also, after improvements of the database of the Centre of Occupational and Radiation Medicine of P.Stradiņš Clinical University Hospital agreement must be reached regarding preparation of data to provide public availability.

- Section on studies carried out in Latvia must be established on the new labour protection website www.stradavesels.lv contributing additional resources from the Plan of preventive labour protection measures of the VSAA in order to summarize not only main publications, but also to establish more detailed base of data, publications and presentations in cooperation with the universities and other institutions of Latvia.

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Annex 1. Content of the CD attached to the publication

Attached CD contains the publication in electronic format, its thematic Annexes to which references are provided in the text of publication, and samples of the conducted surveys in Latvian.

1 Publication

- Electronic version of the publication "Work conditions and risks in Latvia"

2 Thematic Annexes

2.1 General

- Occupational diseases in Latvia, 1993–2009
- Laboratory measurements of working environment
- Legal labour relations
- Occupational risks and their assessment
- Competent institutions and competent specialists regarding occupational health and safety
- Workplace accidents, 1993–2009
- Compulsory social insurance in respect of accidents at work and occupational diseases
- Work conditions of self-employed persons
- State Labour Inspectorate
- Summary of the conducted surveys
- Analysis of the carried out studies and review of similar studies

2.2 Hazardous factors of occupational environment

- Lighting
- Asbestos
- Biological risk factors
- Equipment and dangerous facilities
- Work with computer
- Work with chemical substances and chemical products:
    - Welding spray, manganese and chrome for welding and gas cutting works
    - Dust
    - Organic thinners
- Work at height

- Work in explosive environment
- Electromagnetic radiation
- Ergonomics and ergonomic occupational risks
- Micro-climate (relative air humidity, air temperature and air velocity)
- Optical radiation
- Psychoemotional occupational risks
- Noise
- Vibration

2.3 Occupational health and safety measures

- Training of occupational health and safety specialists
- Occupational health and safety requirements regarding safety signs
- Individual protective equipment
- Compulsory health examinations
- First aid (first aid training and minimum of medical materials for the provision of first aid)

2.4 Sectors

- Construction
- Wood processing and manufacture of furniture
- Metal processing
- Forestry
- Production of food and beverages
- Transport, storage and communications
- Health and social care
- Manufacture of paper and paper products, polygraphy and reproduction of records
- Manufacture of textile and clothing products

3 Questionnaires

- Employers
- Employees
- Occupational health and safety specialists

ISBN 978-9984-793-41-2

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