

Activity “Surveys on the labour market” (21.01.2013 service contract No. EM 2012/63/ESF) of the Project No. 1DP//1.3.1.7.0/10/IPIA/NVA/001 „Development of long-term and medium-term forecasting system for demand of labour market” of the activity „Development of short-term and long-term forecasting and monitoring system” of supplement 1.3.1.7. of the European Social Fund program “Human Resources and Employment”



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SUMMARY REPORT

**OF THE ACTIVITY “SURVEYS ON THE LABOUR
MARKET” OF THE PROJECT “DEVELOPMENT
OF MEDIUM-TERM AND LONG-TERM
FORECASTING SYSTEM FOR DEMAND OF
LABOUR MARKET”**

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Table of Contents

Introduction.....	4
Terms.....	5
Abbreviations	6
List of Sectors	7
1. Technical information.....	8
2. Review of the interviews with experts of economics	11
2.1. Interviews with foreign experts.....	11
2.1.1. Process of the interviews and the issues covered.....	11
2.1.2. Tendencies and directions of the future development of the EU and global economy	11
2.1.3. Tendencies of the future labour market and changes in the workforce demand in the European Union	15
2.1.4. The possible risks in the future labour market and the anticipated problems in the European Union	17
2.1.5. Possible solutions to the identified problems in the future labour market from the point of view of the foreign experts.....	19
2.2. Summary of the interviews with experts of economics from Latvia.....	23
2.2.1. The process of the interviews with experts of economics from Latvia and the issues covered	23
2.2.2. Development tendencies of the economy of Latvia	23
2.2.3. Future tendencies of the labour market and changes of demand in Latvia	26
2.2.4. Possible risks for the future labour market and issues for Latvia	30
2.2.5. Possible solutions for the identified future labour market problems offered by the Latvian experts of economics.....	31
3. Industry interview review.....	34
3.1. Interview process and discussed questions	34
3.2. Development trends, risks and factors of national economy of Latvia.....	36
3.3. Changes in labour demand.....	44
3.4. The availability of labour and expected future labour market risks	68
3.4.1. General trends of the availability of labour	68
3.4.2. Reasons for the lack of labour force and expected impact on the growth of sectors	73
3.4.3. Possible solutions to the identified labour market issues in the future	83

4.	Summary of the findings and thesis of the workshop.....	91
4.1.	Process of the workshop and the discussed issues.....	91
4.2.	“Trap” of low income	91
4.3.	Decrease and ageing of the population/workforce	91
4.4.	Changes in the labour market demand and disproportion.....	92
5.	Main conclusions and suggestions	94
Annex 1.....		97
Annex 2.....		102

Introduction

Dorus Ltd has implemented the project activity “*Surveys on the labour market*” within the framework of the project “*Development of medium-term and long-term forecasting system for demand of labour market*” of the Ministry of Economics.

The aim of the project activity is to obtain more information about long-term development of the economy and the resulting demand of skills in various sectors of economics, as well as to identify the possible risks related to re-structuring of economics and changes in demand of skills, ageing workforce, and professional and geographical mobility of the workforce.

During the project activity “*Surveys on the labour market*” several kinds of surveys were used – interviews with foreign and Latvian economics experts, managers of leading companies in various sectors of economics, sector experts, and representatives of associations, as well as more than 3500 phone interviews with managers of companies of various sizes. The final report contains summaries of the interviews, as well as conclusions and suggestions for future activities. The final report contains data and opinions that were obtained in the implementation of the project activity “*Surveys on the labour market*”.

Terms

Protectionism policy	State policy guided towards protection of the inner market
Green economy	Economy that results in the growth of prosperity and social equality, while at the same time substantially reducing risks for environment and the impact on ecology
Workforce mobility	<p>Movement of workforce between professions (for example: from a tile putter to a bricklayer or from a bricklayer to a baker)</p> <p>Geographical mobility – the geographical movement of the workforce when changing a job.</p>
Know-how	Scientific and technological, commercial, organizational etc. knowledge; information that provides certain advantages in business. <i>Know-how</i> can be business secrets, unpatented technological processes, production or marketing information that is not available to a wider society. <i>Know-how</i> is an object of international business deals, a good that can be bought and sold.
Flexibility	Resilience, ability to adjust
Research&development	Research and development – research that is done by an enterprise in order to find new products or procedures or to improve the existing products or procedures. It is a way for enterprise to continue development by creating new services or processes in order to improve or broaden its activity.
Clusters	<p>Community:</p> <ul style="list-style-type: none">• A body of connected and inter-dependant enterprises and their supportive institutions. The connection comes from similar aims, for example, manufacturing of one or more products of the same kind;• A cluster combines the manufacturers, suppliers, service providers (including, science centres, financial institutions etc.), supportive institutions in the related sectors, state institutions, business associations and others.
Multi-functional	Having many functions
Interdisciplinary	Cooperation between various sectors when one field merges with another by adopting methods.

Abbreviations

ICT	Information and communication technologies
IT	Information technologies
EU	European Union
GDP	Gross Domestic Product
UL	University of Latvia
BS	Business School
RTU	Riga Technical University
ECL	Employer’s Confederation of Latvia
EFTCL	Free Trade Confederation of Latvia
BICEPS	Baltic International Centre for Economic Policy Studies
CSB	Central Statistical Bureau
GB	The Great Britain
IE	Ireland
DE	Germany
NO	Norway

List of Sectors

- A Agriculture, forestry and fishery
- B Mining and quarrying
- C Manufacturing
- D Electricity, gas, steam and air conditioning supply
- E Water supply; sewerage, waste management and remediation activities
- F Construction
- G Wholesale and retail trade; repair of motor vehicles and motorcycles
- H Transport and storage
- I Accommodation and food service activities
- J Information and communication activities
- K Financial and insurance activities
- L Real estate activities
- M Professional, scientific and technical activities
- N Administrative and support service activities
- O Public administration and defence; compulsory social security
- P Education
- Q Health and social care
- R Arts, entertainment and recreation

1. Technical information

Method

1. Latvian experts of economics – in-depth interviews;
2. Foreign experts of economics – in-depth phone interviews; questions were sent prior to the interviews;
3. High level company managers, representatives of the sector associations and sector experts recommended by the sector associations – in-depth interviews;
4. The highest level managers or owners of companies’ – phone interviews.

Sample size

1. Experts of economics:
 - 1.1. 20 interviews with high level Latvian experts;
 - 1.2. 20 interviews with foreign experts;
2. High level company managers, representatives of the sector associations and experts recommended by the associations – in-depth interviews:
 - 2.1. 135 in-depth interviews with high level company managers;
 - 2.2. 45 in-depth interviews with representatives of the associations in the economics;
 - 2.3. 45 in-depth interviews with sector experts recommended by associations.
3. 3628 phone interviews with the highest level company managers or owners (each company featured in the survey is represented by 1 person);

Choosing the sample

1. Interviews with experts of economics:
 - 1.1. Latvian experts – sampled high level Latvian experts of economics specialized in macroeconomics and/or labour market issues;
 - 1.2. Foreign experts – sampled high level foreign experts of economics specialized in macroeconomics and/or labour market issues and who have global or European view.
2. High level company managers, representatives of the sector associations and sector experts recommended by the sector associations:
 - 2.1. As the basis for the sampling 45 sectors of economics were used. In each sector 3 companies were chosen that features among 10 biggest companies in the particular sector by number of persons employed in 2011 (according to data of the Central Statistical Bureau). In each of those 3 companies 1 high level manager was interviewed;
 - 2.2. In each of the 45 economic sectors 1 association was chosen to represent the sector that is among 3 of the biggest associations in the sector by the number of persons employed and a representative of such association was interviewed;
 - 2.3. Each of the interviewed representatives of the sector association recommended an expert of the respective sector who has excellent knowledge of the respective

sector in general and interviews were held with the sector expert.

3. Company phone interviews – Sample kind– quota sampling, sampling structure:
 - 3.1. The general group contains all economically active statistical units both in private and public sector according to the location – planning region;
 - 3.2. Depending on the number of persons employed, the general group contains companies with 5 or more employees;
 - 3.3. As the basis for the sampling 45 economics sectors were used;
 - 3.4. The sampling also contains all companies registered in Latvia that employ at least 250 employees.

Time of the interviews

1. Interviews with Latvian and foreign experts of economics – made within the time period from March 14, 2013 till May 8, 2013. The average time for an interview was one hour; in general interviews lasted from 50 minutes to 2 hours.
2. Interviews with high level company managers, representatives of the sector associations and sector experts recommended by the sector associations were made within the time period from February 22, 2013 till May 10, 2013. The average time for an interview was one hour; in general interviews lasted from 40 minutes to 2 hours.
3. Phone interviews with companies were made within the time period from May 29, 2013 till July 5, 2013. The average time for a phone interview was 11 minutes. The average time for an interview was one hour; in general interviews lasted from 8 minutes to 14 minutes.

Ratio of the invited informants and the interviews

1. Interviews with Latvian experts of economics – 87 Latvian experts of economics were invited. Out of those 66 refused the invitation. Overall 21 interviews were made. One of those interviews was not suitable (informant was incapable to answer several of the questions), thus the interview was not included in the study.
2. Interviews with foreign experts of economics - 87 foreign experts of economics from 16 countries were invited. Out of those 64 refused the invitation. Overall 23 interviews were made. Three of those interviews were not suitable, thus the interviews were not included in the study.
3. Interviews with high level company managers, representatives of the sector associations and sector experts recommended by the sector associations:
 - 551 high level company managers were invited. Out of those 403 refused the invitation. Overall 148 interviews were made. Out of those 13 were not suitable (for example, informant was incapable to answer several of the questions), thus the interviews were not included in the study;
 - 102 representatives of the sector associations were invited. Out of those 57

refused the invitation. There were no unsuitable interviews;

- 66 sector experts recommended by the sector associations were invited. Out of those 19 refused the invitation. There were 2 unsuitable interviews (informant was incapable to answer several of the questions), thus the interviews were not included in the study.

4. Phone interviews with companies:

- 8940 of the highest level company managers or owners were invited. Out of those 5221 refused the interview;
- 3719 interviews were made. Out of those 91 were unsuitable (for example, informant was incapable to answer several of the questions), thus the interviews were not included in the study;
- 3628 phone interviews with the highest level company managers or owners were deemed to be suitable.

2. Review of the interviews with experts of economics

2.1. Interviews with foreign experts

2.1.1. Process of the interviews and the issues covered

Interviews with foreign experts of economics and labour market were held in order to learn about the views of foreign experts on the global economy, in particular, previous EU development tendencies, current situation and possible development directions in medium and long-term, as well as to find out how those tendencies have influenced the labour market and how they will influence it in the future.

Interviews were made with 20 experts of economics from 12 countries:

Germany – 5 experts;	Norway – 1 expert;
Finland – 2 experts;	Spain – 1 expert;
Sweden – 2 experts;	Ireland – 1 expert;
Great Britain – 2 experts;	Romania – 1 expert;
Estonia – 2 experts;	Netherlands – 1 expert;
Austria – 1 expert;	Hungary – 1 expert.

During the interview experts answered questions regarding three main issues:

- Review of previous development of EU economy and labour market.
- The current situation in the EU and global economy and labour market, as well as evaluation of documents of EU labour market policy and development planning of Latvia. Issues on availability, demand and mobility of the workforce were also analysed.
- Regarding future tendencies the following was discussed:
 - Factors that will influence the development of EU economy. The future development of the EU and global economy. Services and goods that will be more demanded in EU and the world. The branches that will be the basis for the development of the EU.
 - The general development of the EU labour market and possible risks. Specialists who will be more demanded in the future; will there be a deficit or a surplus. Adequacy of the workforce and forecasts for workforce mobility.

2.1.2. Tendencies and directions of the future development of the EU and global economy

Development tendencies

During the last 20 years the industrial landscape has changed significantly. This has had a major influence on the EU development.

The economic structure itself has changed – the sector of agriculture is continuously decreasing, while the sector of services is growing. (Expert of economics, Estonia)

The manufacturing has decreased in both Norway and the EU. Economy is more oriented towards service. Nowadays service industry is very important. (Expert of economics, Norway)

Economy has become more global with a particularly fast development in China and India and this development tendency is most likely to continue. Part of the factories has been moved to countries where the costs of workforce are lower. This has facilitated the development in such countries as, for example, the already mentioned China and India and has promoted shift of power in the global economy.

The traditional centres of power, such as the USA, the EU and Japan, are losing their share in the global economy and the world GDP, giving way to such countries as China, Korea and countries from South East Asia. The share of the USA, Japan and the EU in the global GDP has decreased by more than 10 %, especially that of the EU. At the same time, the share of China and India has grown by more than 10 %. The main players in the global economy are now China and India, especially, China. The statistics of the World Bank indicate that EU's participation in the global economy is decreasing. (Expert of economics, Spain)

Many of the traditional industries – such as textile industry and shipbuilding are moving their factories to other places in the world. The European market is unable to compete with the low costs in those countries, as well as the cheaper workforce. (Expert of economics, Great Britain)

Asia is most likely to continue its development. The USA might also continue stable development. If the USA politicians continue to fight each other then it may have negative impact on the USA economy and make the development of the USA indefinite. (Expert of economics, Norway)

At the moment there is an inequality between countries, increase of polarisation and financial instability. Crisis in several of the EU countries gave us experience and influenced the speed of countries' development.

There is a great difference between countries' finances. This was confirmed by discussions on necessity of strict measures for budget in the EU during the crisis, which left some of the countries with comprehensive unemployment. There are huge differences in the financial costs. (Expert of economics, Spain)

The economic climate in Europe is tense. We are undergoing crisis of an unprecedented volume. Everybody saw what happened with Cyprus. It illustrated that the situation is not that stable. We can expect even more problems in the bigger countries. We are experiencing that even the most powerful economic force of the EU– Germany has decreased its development speed. We have no idea how this year will end and what will the next one bring. A decade of transformations and consolidation seems very likely. (Expert of economics, Romania)

The main development risks involve dealing with the fiscal system and learning how to manage the financial crises. Unfortunately, at the moment it seems that all attention is directed towards the solution of the crisis, rather than thinking about innovations. (Expert of economics, Finland)

One of the most significant aspects is whether we are able to learn from the previous fiscal crises or not. (Expert of economics, Finland)

Vital decisions will be related to the diversion of manufacturing towards developing countries in order to lower the costs, because there is the issue of economic growth of China – will it continue to be the place of low costs or will there be new countries where to base factories. There is a possibility of a leap in the manufacturing costs.

This will have a significant impact on the decision whether certain manufacturing sectors will have to come back to the EU or remain in Asia. (Expert of economics, Great Britain)

With the development of China and India there is a risk that the demand of energy and food will grow and this might prove to be dangerous to the planet resources. Even stronger impact might be left by geopolitical unrests and this in turn might cause a spike in the oil prices. This means that at both Europe and global level it is necessary to lean towards effective and environmental-friendly manufacturing.

For them to be competitive countries need to offer produce that is environmentally-friendly and goods that have small energy consumption (the greater the energy consumption, the higher the price of goods; the smaller the energy consumption, the lower the price of goods). (Expert of economics, Finland)

Future development directions of the EU

Future development directions of the EU will depend on changes in demand. In countries that reach prosperity fast, such as Indonesia and Brazil, the demand will grow for luxury goods and services. The Western countries; however, will look for ways to decrease costs while maintaining the previous way of life.

Price sensitivity: people will look for ways to decrease prices. There will be demand for products that allow maintaining the standard of life, but are cheaper. (Expert of economics, Great Britain)

At the same time, demand for food and care services will remain strong. The forecasts indicate that due to the demographical situation the demand for health care services might increase.

The changes in the European demographic situation require a solution by establishing an effective health care and innovations. (Expert of economics, Finland)

Experts have different opinions on the increase of demand. On the one hand the prognoses indicate that the demand for various resources will grow: water, metals, oil; on the other hand, demand will be greater for ideas, manufacturing and human resources, as well as international services.

Demand will grow for financial services related to international trade, credits, and economy. Financial services: the finance world dominates the

manufacturing world. Very dual or polarized world: on the one hand food, metals, oil; on the other hand finances. (Expert of economics, Spain)

One of the main problems is the lack of business spirit. If we compare the markets of the USA and the EU, we see that in Europe there is a lack of entrepreneurs who would create new markets. (Expert of economics, Germany)

One of the most certain future development directions is the “green” industry.

The EU needs to focus on green economy, environment preservation, and sustainability. We currently assesses whether these green economics sectors as solar energy, wind energy, and other products related to energy efficiency; whether those sectors and the employment in those sectors can be developed further and we see potential for growth. (Expert of economics, Netherland)

Any industry might be the leading in the world, if only it is sustainable, environmentally friendly with low energy consumption in the manufacturing. (Expert of economics, Finland)

Both at global and European level the main challenge is to transform manufacturing from mass production that is harmful to environment to an effective, environmentally friendly process. For them to be competitive, countries need to offer products that are environmentally friendly and goods with small energy consumption. (Expert of economics, Finland)

Experts don't believe in giving absolutely precise prognosis on sectors that will experience certain growth, because it is impossible to make exact forecasts.

It is the mistake of many politicians to think that they are the ones to determine which sector will be prosperous; to believe that they may choose anything and be successful. This kind of attitude may lead to a complete failure with politicians still believing that the most successful choice is nanotechnology or alternative energy, same as finances were previously. For example, Italy has excellent clothes companies, great agriculture, a global agriculture, fantastic tourism industry. Our policy should be that every product and service has a global quality and charm, rather than stress which sector will be successful; which ones will have the priority and which will be useless, because they have low added value; it is a mistake of politicians from many countries to think that there are sectors that work well and sectors that are less valued and therefore won't receive government support. (Expert of economics, Great Britain)

In the view of policy makers the main problem of many sectors is that it is very hard to define the winners. Discard stereotypes: there are good engineers only in Germany, or that the tourism industry is very successful in Mediterranean region. It is hard for the government, economists, forecasters to anticipate which sector will work well in the future, which not so well. Market works in mysterious ways. (Expert of economics, Great Britain)

Summary

- Inequality, polarization and financial instability are becoming global issues.
- The EU requires brave decisions in order to solve the situation of the countries' debts restricting the development of economics.
- Risks are related to development of economy in China and India, and the diminishing impact of the traditional power centres – USA, EU and Japan.
- Due to the rapid industrial development of the developing countries and the instable geopolitical situation in certain regions problems of unavailability of resources may arise.
- Important issue will be the restructuration of manufacturing in an effective and environmentally friendly process with low energy consumption.
- In countries with high growth in prosperity the luxury goods will be in demand; however, in the Western countries more necessary will be solutions that allow maintaining the previous standard of life with lower costs.
- The demand for various resources will remain stable: water, metals, oil, as well as oil products and care services.
- Experts have different opinions on the future development of various sectors:
 - Any sector may develop – the most important thing is for the sector to be sustainable, environmentally friendly, and with low energy consumption.
 - It is more important to develop the existing products that are historically strong and have obtained global recognisability – it is vital to develop the quality of the existing products and services in order to remain competitive.

2.1.3. Tendencies of the future labour market and changes in the workforce demand in the European Union

There is re-orienting in the EU towards highly qualified workforce with very specific knowledge. This is considered to be the main future tendency in the EU and the basis of competitiveness.

Currently the EU focuses on the so-called “knowledge” economy; it invests in the latest technology sectors; in sectors that require highly qualified workforce. Better workplaces are being created with higher quality requirements. (Expert of economics, Great Britain)

The EU's aim is to have a knowledge economy. Competitive superiority, advantages to offer products and services of high quality, and to fight with India and China on the low costs of workforce. (Expert of economics, Netherlands)

More and more is required from the employee in every sector. Skills are getting more specific. In the future employees will have to know more, do more and be all around more qualified. (Expert of economics, Estonia)

At the moment we see several things; one of the most significant factors that the EU and the European Commission is using is the development of “knowledge” economy. (Expert of economics, Great Britain)

One of the tendencies of the future labour market is workforce mobility that creates various consequences in European countries.

There is a movement of the workforce in the labour market. Some countries gain from this and some lose. (Expert of economics, Finland)

There will be more prevalent geographical mobility. It will aggravate the polarization between countries. The EU will have to work hard in order to minimize differences. Naturally, there will be cultural and language barriers. (Expert of economics, Spain)

The fact that highly educated youth are leaving Europe to go to Brazil or Angola, or Africa, leaves us with a structural problem: we can lose a big part of the workforce in which we have invested. (Expert of economics, Romania)

Not only national economies, but also regional universities will start to worry that they are teaching students for export. (Expert of economics, Great Britain)

Regarding changes in sector development directions several professions are more in demand at the moment and will remain popular in the future according to the forecasts: engineers, IT specialists and medical staff. However, those professions require high qualification, education and specific skills in order for the specialists to be demanded.

Specialists are always needed; more engineers are always needed. Specific skills are necessary and there are never enough engineers. Employees with specific education are demanded, especially in the civil engineering. Part of this is the “green” economy. (Expert of economics, Great Britain)

There is more and more demand for specific “green” knowledge. It might be highly specific in a very narrow sector, for example, knowledge on wind turbines where the basis is the regular engineer education, but with more specific skills. (Expert of economics, Great Britain)

There will be more demand in health care, IT sector, green industry. Demand for highly educated employees will be higher. (Expert of economics, Finland)

Three most demanded professions in Europe at the moment are: engineers, IT specialists, and medical staff and care staff. (Expert of economics, Romania)

However, regardless of the fact that specific, high level skills will be required of the future employee, flexibility and mobility will also be necessary.

There will be greater demand for flexible employees who will be able to adjust to the company’s economic cycle. (Expert of economics, Netherlands)

We need good managers, decision takers; we need people who are able to sell stuff at a global scale, skills of an international salesperson, management skills, ability to change business structure, should the supply decrease, dynamic skills. A real talent will always be demanded in the labour market. (Expert of economics, Great Britain)

Very high demand for specific technological skills will contrast with simple basic skills, for example, agriculture skills. There will always be need for manual workers.

Demand in the agriculture will remain stable. You will always need food on the table. (Expert of economics, Great Britain)

There is a need for low qualified workers in several sectors in various countries. (Expert of economics, Romania)

Forecasts of workforce surplus are mainly related to low qualified employees. There are opinions on surplus of medium qualified workforce as well as professions related to administrative work.

The common trait is that there is less demand for low qualified employees. (Expert of economics, Estonia)

A surplus of medium qualified employees. At the moment many people are studying history, philology or art and they are not obtaining specific qualification that is demanded in the labour market. (Expert of economics, Great Britain)

Surplus exists in professions related to administrative duties. In Europe we have too much administration. We have to deal with this situation. This is a side effect to integration, the construction of Europe. There is much too much self-developing administration. (Expert of economics, Romania)

Summary

- There is re-orientating in the EU towards highly qualified workforce. The development of “knowledge” economy has a strong influence on the labour market development.
- There will be greater demand for engineers, IT specialists, medical and care staff.
- There is already a movement of the workforce and this tendency will continue to grow.
- The most important thing for the potential employees will be high qualification, education and specific skills.
- Although there is a tendency for the demand of manual workers to decrease, there will always be demand, for example, in agriculture, because people will need food.
- There will be surplus workforce in professions related to low qualified jobs.

2.1.4. The possible risks in the future labour market and the anticipated problems in the European Union

Some experts believe that there is no common EU labour market in practice. There are very strong differences in the labour market between countries, especially along the Northern-Southern divide.

Basically we have 27 different labour markets as can be seen, for example, by the unemployment rates: 26-27 % in Greece, Spain, 4-5 % in Austria, Germany. The differences are huge; therefore it would be futile to speak about EU labour market. The labour market is still limited by the countries’ borders and this should be remembered. (Expert of economics, Great Britain)

There is a great difference between Southern Europe countries where the crisis is currently more pronounced and the Northern and Central Europe.

There is great instability in the labour market and this leads to huge unemployment, especially in the Southern countries. (Expert of economics, Finland)

Aging population is a significant factor that determines the general development of the labour market. With the workforce ageing important skills are lost in the labour market, because the youth that enter the labour market are not sufficiently qualified. However, the forecasts for the next 20 years are contradictory. Part of the experts believes that the ageing won't cause problems with workforce; another part thinks that the situation is already at a critical point.

The population is ageing and in many countries, for example, France, there is no balance between the working population, and the youth and people at retirement age. Since people nowadays generally live longer, it is necessary to support more people at retirement age, thus a greater number of workers is necessary. (Expert of economics, Great Britain)

Workforce is diminishing due to ageing; however, if we look at the unemployment rates we think that if we guide education in the right direction there should not be any problems with workforce in the next 20 years. (Expert of economics, Austria)

At the moment unemployment is seen as a problem for the future labour market; however, it is necessary to look at it as discrepancy between the supply and demand. There is a demand in the labour market for highly qualified employees while at the same time unemployment is growing among people with higher education.

At the moment there are so many unemployed people that it seems we could say: there is enough workforce. But, of course, we cannot look at the problem this way. Currently there is not enough workforce and there is a discrepancy in the labour market. There are pre-crisis discrepancies between supply and demand for which we are trying to find solutions. Those discrepancies come from the education system. Sometimes companies grow faster and the demand soars more rapidly than the supply is developing. (Expert of economics, Romania)

Problem: the high level of unemployment in the EU. The number of workplaces is continuously decreasing and the situation in the EU is at a critical point. Most likely we are now at the lowest point of the crisis and soon the process of recovery might start. (Expert of economics, Norway)

In the Netherlands it is difficult for companies that are related to technologies to find the necessary highly qualified employees with technological education and not only in the Netherlands, but also in the EU. (Expert of economics, Netherlands)

The last five years – this is what I mean by the current situation – have been dramatic regarding unemployment. This expression was also used by the European Commission, which is usually very diplomatic in what it says. (Expert of economics, Spain)

The experts see long-term unemployment as not only a risk, but also a serious threat to the development of the labour market.

The most worrying tendency is long-term unemployed. This is an inactive population that is formally looking for a job, but the people are in fact inert. It is very hard to find a way how to deal with this huge part of the population. (Expert of economics, Spain)

Youth unemployment is another problem of the future labour market.

Young people find it hard to join the labour market, because it is practically impossible to find a job without experience, but it is not so easy to obtain experience. (Expert of economics, Great Britain)

How we will deal with unemployment benefits, the level of crime, and the children of unemployed people: all of this will set back for several decades the social progress obtained in the last 20 years, unless we find a solution. Successful inclusion of the youth in the labour market will be the policy with the greatest impact on the success of long-term European economy. A failure might cause a catastrophe. (Expert of economics, Great Britain)

The most significant risk is the constant unemployment that affects the youth, because if the youth will find it harder and harder to enter the labour market then it is a risk for the whole labour market, since it influences the social stability of the youth. (Expert of economics, Romania)

The youth that enter the labour market has to have opportunities to learn the necessary skills in order to fulfil their future needs. The problem is how can we determine which skills will be in demand after twenty years? We cannot predict the exact skills, but we can forecast the basic directions, such as IT. (Expert of economics, Great Britain)

Summary

- Although there is a common EU labour market, the differences are very pronounced, especially between the Northern and Southern countries.
- Most of the respondents identified consequences of ageing as a problem for future labour market.
- Unemployment as a discrepancy between supply and demand and long-term unemployment create serious threats for the development of the future labour market.
- Youth unemployment is an issue. The inclusion of the youth workforce will be the determining criteria for the development of economy.

2.1.5. Possible solutions to the identified problems in the future labour market from the point of view of the foreign experts

In recognizing ageing as a future tendency solutions can be found in rising of work hours and the retirement age, because the main aim is to keep the skills of the ageing workers in the labour market as long as possible. The sector of care might attract

older workers. Of course, there also must be material compensation for people who choose to remain in the labour market for longer.

The workforce ageing automatically creates a deficit and the entrepreneurs have to find a solution to this situation. One of the ways of how to do this might be to increase the working hours. This solution is already being discussed. (Expert of economics, Germany)

We have to look for ways to employ older people. In certain professions we have to increase the age of compulsory retirement; both actual and as stated by the law. (Expert of economics, Spain)

The active aging programmes as, for example, life-long learning are crucial; also significant monetary compensation for remaining in the labour market. (Expert of economics, Spain)

Three professions most in-demand in Europe: engineers, IT specialists and medical staff and care staff. This is where we can include the ageing population of Europe. (Expert of economics, Romania)

At the same time it is necessary to change the stereotypes and attitude towards older workers.

We have to combat stereotypes of lack of flexibility and innovation. Those are mainly directed towards highly qualified employees. Stereotypes influence our views and our views make us act a certain way. This impacts the workforce mobility, long-term employment. The raise of older workforce is important in several professions. (Expert of economics, Spain)

There are contradictory opinions on the various EU policies used for the solutions to the labour market problems – the aim is understandable and necessary, but there are doubts on the achieved results.

The main focus of the EC in Brussels is how to stimulate the demand in the labour market. How can we stimulate it? By utilizing the labour market legislation, because we can see that it (stimulating the demand in the labour market) works. (Expert of economics, Great Britain)

We have seen that the implemented policies have not benefited the competitiveness, innovation capacity, or incoordination of the existing skills. We are not only competing with the USA and Japan, but also with China, which does not have a democracy or a social mechanism for adjusting the economic system, that would be at the same time conservative and hindering and this allows China to deal faster with certain aspects of the labour market. (Expert of economics, Spain)

Professional mobility is a future solution, a necessity; however, the experts are treating it cautiously, because every profession has its own mobility requirements. There are professions where it is possible and then there are also professions where it won't be possible.

Mobility has failed to adjust as it should have and it obviously falls behind the economic re-structuring. (Expert of economics, Finland)

In general it means acquiring new education, but institutions and organizations are reluctant to provide support. First of all you need money to learn a new profession which is an obstacle and second of all you need time to study which will be a problem if you have to combine it with your work duties. The employers in general do not give people the choice to have time to learn a new profession. It is complex. (Expert of economics, Netherlands)

The future workforce has to be more flexible and ready to change professions much more often; however, the question is how to achieve this. (Expert of economics, Germany)

Professional mobility is more achievable for low rather than highly qualified workforce.

Mobility level is low and in many countries it is even further decreasing, because the labour market demands much more specific knowledge and therefore it is difficult to change professions. Mobility is more prevalent in jobs that require basic skills. If we achieve higher workforce mobility among the EU countries then the development of the labour market will take a positive direction. (Expert of economics, Germany)

Mobility tends to decrease, because the level of skills rises. If you have spent 7-20 years in order to become a doctor you are unlikely to dismiss them as useless and become a bus driver. (Expert of economics, Great Britain)

In the future there will be high demand for workforce mobility; however, in the professions where a high level of education is necessary it will be very hard to achieve mobility. (Expert of economics, Finland)

One of the possible solutions is migration – experts agree that it is necessary, but there is no clear vision of the mechanism of how to achieve this.

Europe needs migration. We have to deal with demographic problems. We cannot wait until 2040 when according to some forecasts part of the European countries will be basically deserted. We need the migrants! They will bring dynamic to the labour market. (Expert of economics, Romania)

We have to find solutions to the immigration issues so that workforce is available. (Expert of economics, Great Britain)

In the next 10 years the number of retired people will grow and we will need immigrants, especially in the service industry and construction. There will be problems in many service industries, because in many countries the youth chooses to study and does not want to work in the basic professions; therefore such industries will have to depend on the immigrant labour. (Expert of economics, Finland)

The EU might need cyclic migration – people go to foreign countries to work for a while and after a few years return home having become more highly skilled. (Expert of economics, Netherlands)

Summary

- Some experts believe that ageing issues could be solved with increase of working hours and by rising retirement age.
- Migration as a solution: experts agree that migration will be necessary in order for the labour market to have enough workforce.
- Professional mobility as a solution is treated cautiously, because there are professions where it is not possible.

2.2. Summary of the interviews with experts of economics from Latvia

2.2.1. The process of the interviews with experts of economics from Latvia and the issues covered

The interviews with Latvian experts of economics and labour market, were organized in order to learn the opinions of the Latvian experts on the previous development tendencies of Latvia, the EU and the world economy, the existing situation and the possible development directions in medium- and long-term, as well as to find out how those tendencies have previously influenced and how they will continue to influence the situation in the labour market.

Interviews were made with experts of economics and economy (economists, entrepreneurs, members of the Economists Association), experts of bank economics and economy (SEB bank, Nordea, DNB bank, Bank of Latvia), experts from several universities (UL, BS, RTU, “TURĪBA”), experts on the issues of labour market and employment (CV-Online, ECL, EFTCL, BICEPS).

During the interviews experts answered questions on three main issues:

- The characterization of the previous development of the economy and labour market in Latvia.
- The current situation in the economy and labour market of Latvia, as well as opinions on the economic policy, labour market policy and the development planning documents of Latvia. Also issues of workforce availability and its impact on the competitiveness of companies.
- The focus was on the future tendencies:
 - Which factors will determine the development of economics; the economic development of Latvia. Which goods and services will be more demanded and which sectors will facilitate growth.
 - How will the labour market develop in general and the possible risks; which specialists will be more demanded in the future; will there be a deficit or a surplus. Will there be sufficient workforce and what the forecasts for workforce mobility are.
 - Which instruments and mechanisms should be used to compensate the deficit in workforce; what are the opinions on solving this with remigration or encouraged immigration.

2.2.2. Development tendencies of the economy of Latvia

In the past few years Latvia has managed to stabilize the economy and started development anew by significantly raising the volume of export, which is at the moment is the strongest driving force of economy in the country. However, along with the growth in export, the dependency on stability of the European Economic Area and the development of global economy also grows.

Export makes much greater proportion of the economy compared to 2007 and therefore there is a smaller proportion of trade and construction. There are

*more of relatively external markets and less of relatively internal market.
(Expert of economy from a bank)*

Since we are a small country and an open economy, the long-term development depends on the development of Eurozone; on how successful we are in attracting external investments and technologies. (Economy expert of economics)

*In the past two years we have seen a positive development, we have increased the proportion of export therefore the external situation affects us greatly.
(Expert of economy from a bank)*

In general the macroeconomic indicators of Latvia are improving. However, the situation in the labour market is still tense. It is caused by the structural unemployment and the level of wages determined by the European open labour market. Those factors might create problems for the future development.

The current situation is well balanced. This means that there is growth in the economy that is moderate compared to what we experienced in 2006-2008, but it is still strong if we look at it from the global perspective; any growth above 5 % a year is good, unless you are China. There are also two very good factors in Latvia: 1) almost completely balanced current account which means external balance; we don't spend more than we have and have stopped to borrow, in fact we spend as much as we earn and that's a good thing 2) also the government finances are in good shape, at least we spend almost nothing at government level, there was a small deficit of 1.5 % in the last year, but we are basically living within our means. (Expert of economy from a bank)

There are unemployed who require re-qualification, who are unable to find a job. There will be problems if the state does not act accordingly. The latest researches indicate that there is a big part of the unemployed who could be employed but there are no vacancies in their professions. (Economy expert of economics)

The unemployment in Latvia is still high; the number is written with two digits. The company surveys indicate that workforce is not the most significant factor that hinders the business operations. It is still possible to find workforce. Economy is starting to find its balance. In few years there will be no surplus of employees; the wages will rise. (Expert of economy from a bank)

*There is a development of economy at a macroeconomic level; there are a lot of positive things. At a certain level productivity is growing, but it is clear that in the nearest future this won't have an effect on the population as whole.
(Expert of economy from a university)*

All in all the development of economics is assessed as positive; forecasts predict growth of competitiveness and development. However, if we look at a global scale, the existing progress is relatively small. During the crisis the export competitiveness of Latvian manufacturers was increased by lower costs of workforce, but at the moment one of the challenges is the rise of productivity.

We are manufacturing high quality goods at competitive prices. The fact that we have been able to increase export is, of course, positive, but the volume of

Latvian export compared to the old EU countries is still tiny. There are more possibilities for us in the service industry. (Expert on issues regarding labour market)

Short-term development will depend on the same sectors as usually – manufacturing, food industry, chemistry, timber industry etc. Later on there might appear other ones. (Expert of economy from a bank)

The competitiveness of Latvia in manufacturing and service industries is low, but it will grow. (Economy expert of economics)

In long-term very important will be power sector policy, at what prices and how advantageous it will be to manufacture goods in Latvia. This depends on power sector and costs of workforce. (Expert of economy from a bank)

Experts of economics believe that productivity depends on competitiveness in the external markets, high quality global goods and services, the requirement to ensure better paid workplaces in order to decrease the emigration of workforce and encourage remigration.

From now on Latvia will have to find ways how to raise productivity and create goods and services with higher added value. If we don't do this then we will remain stuck in a vicious circle: low wages – emigration – deficit of workforce. (Expert on issues regarding labour market)

The main problem is that our manufacturing sectors are unable to ensure sufficient productivity. We cannot ensure high wages. You can't pay more that can be produced. Is it possible to pay 2-3 thousand a month in our situation? We are not the Western world where such wages are paid in many sectors. Those are the new sectors where employees have been specially selected and there are not a lot of them. (Expert of economy from a university)

Before the crisis companies in surveys to the question: why do you want to raise the employees' wages, answered that this is influenced by such factors as inflation or that if they don't raise the wage, the employee will emigrate. At the moment in similar surveys as the most significant factor was mentioned the performance of the employee and their productivity. This is an improvement. (Expert of economy from a bank)

At the moment Latvia faces a certain challenge. We have fully realized the situation and it is clear that in long-term we cannot compete with low quality goods. Changes in the economy structure, increase of productivity and innovative solutions both in service industry and manufacturing might be the answer. (Expert of economy from a university)

The development of economy in Latvia is anticipated in those sectors that have been growing previously: especially, health care, IT, and industry. Those are some of the sectors that are likely to continue development. The economic development is mainly related to development in technologies. It might increase productivity, as well as create a rise in demand for production of technological companies at a global scale.

There will be an economic growth in Latvia in almost all sectors. In service industry it will be health care, IT and education, as well as biology, agriculture and industry. (Expert of economy from a bank)

The rate of development will be higher than average in the following sectors: manufacturing; business or commercial services, scientific, professional, and technical services, administrative sector (M and N sectors). Faster than average development will be seen in the health and social care sectors – the growth in those is currently low. IT might also grow more rapidly. (Expert of economy from a bank)

Our IT sector is competitive because of the soviet heritage and a few strong companies. Therefore there is professional education in this sector. This is one of the most progressive sectors. (Economy expert of economics)

In long-term many things might change; everything related to technologies will definitely transform, demand for new technologies and everything related to them will grow. (Expert of economy from a bank)

Summary

- In general the macroeconomic indicators of Latvia are improving.
- The export volume in Latvia compared to other EU countries.
- The export volume in Latvia is rising, and this increases the dependency on external factors.
- Economics is experiencing the structural unemployment and migration created by the open European labour market.
- In the following years the development of economics will lean on sectors that are already strong. Development will come from increased productivity and technological advances.
- The main challenge for Latvian companies at the moment is how to increase productivity for the competitiveness and the need to increase wages in order to keep the workforce.

2.2.3. Future tendencies of the labour market and changes of demand in Latvia

The future tendencies of the labour market are related to increase of productivity. We will see a rise in the need for qualified specialists and a fall in the demand for low-qualified specialists. Experts anticipate a general rise in demand for the available specialists, but they will be required to be able to work with more advanced machines, technologies.

I believe that the demand for qualified workforce will rise. The demand will rise for people who are able to operate a machine in a factory, rather than for people who are only able to fix the machines, especially regarding the fiscal policy. Also other factors will create a fall in the demand for low-qualified workforce and the demand for well-educated workforce will rise. (Expert of economy from a bank)

In the future there will be demand for highly educated specialists, technical professions, IT, engineering; this will be related to industrial development, which depends on the industrial policy. With the level of productivity rising, the demand for low-qualified employees should decrease. (Expert of economy from a university)

Rise of highly qualified workforce is related to specialists with vocational education; this segment of professionals is important for the future development of economics. The need for such specialists already exists and in the future it will get more pressing, because the professional skills are becoming more advanced in practically every sector.

In the future there will be a deficit of medium qualified specialists with technical knowledge and vocational education who are able to do qualified job. (Expert of economy from a university)

In the next 5 years there will be a rise in demand for employees with vocational education. (Expert of economy from a bank)

It is clear that there is a deficit of workers. We will need people with technical education who are able to understand what is expected of them and know how to do it. Vocational education, also technical colleges, colleges – there is already a lack of such specialists. (Expert of economy from a university)

One of the negative tendencies is the narrow labour market which creates structural unemployment, because professionals often become unemployed or emigrate. This tendency means that once they have become inactive, most professionals don't come back to the labour market. They stop developing their skills and lose the possibility to return to the labour market.

Structural unemployment creates threats of professionally skilled people living on benefits. They don't return to the labour market. This is clearly a negative thing. (Economics expert of economy)

When companies are re-structuring and eliminating positions, some of the employees leave, some re-qualify, others become unemployed, and some emigrate. A part of those people are now economically inactive. (Expert of economy from a bank)

Structural unemployment is closely related to regional disproportion of workforce. In the regions there are a limited number of specialists and it is difficult for them to find a suitable job in the regions. There is a low level of geographical mobility. People don't look for a job outside their region; if the job is not located nearby the specialist might refuse to work there.

The problem of workforce availability in the regions will become more acute. We very often hear from the regional employers that the potential employees refuse to work in territories that are not located close to their place of residence. (Expert on issues regarding labour market)

First of all we have to decrease structural unemployment, especially at a geographical perspective by encouraging people from sparsely populated places to move to more populated areas. This can be encouraged by fiscal policy. If we fail to do this then there will be migrants from Moldova in Riga while people from Latgale will be unemployed. (Expert of economy from a bank)

The issue of structural unemployment will remain, because there will be more and more intensive developments in new technologies and work methods, thus there will be new qualification requirements. People will not only have to raise their

qualification; there will also be need for specialists with different skills for the same jobs. The most significant change is considered to be the transition from manual labour with mechanical machines to automatic machines.

This cannot be precisely forecasted, but the specialists will most likely have to change qualifications more and more rapidly. The time period when a specialist will be considered to be competent in certain area will be shorter. Those things change so fast that I can only say that we have to ensure life-long studies for people. There will be a constant need for re-qualification. (Economics expert of economy)

We have to be ready to combat the structural unemployment. There has to be basic education, so that person can develop further, grow up already thinking of the future. So that there isn't a situation when we have new technologies, but no one who is able to operate them. We need to ensure that new things can be learned fast. At the moment skill sets are too narrow. (Expert of economy from a university)

Technologies, automation will decrease the demand for workforce, which will on one hand be beneficial for companies, because the unavailability of the workforce will be solved. From now on the demand will grow slower than economy as a whole. However, regardless of the fall in the demand, the situation will still be tense when requiring specialists with certain skills. It will be a workforce with different, comparatively new or specific skills.

The demand will grow for IT, manufacturing specialists, engineers etc. It is difficult to say where the demand will decrease; might be in several service sectors where new IT Technologies are now utilized; where there is no longer a need for a human operations: the job is done by technologies (for example, ATM machines). (Expert of economy from a bank)

The demand for workforce will gradually grow. If the manufacturing is developing and new factories are built then we have to understand that there will be an increase in manufacturing due to rise in productivity. The factories will get more advanced. If there used to be a need for 50 people in a small factory then now 5 is enough; the wages stay the same, but the job can be done by 5 qualified workers. The demand for workforce will grow gradually and possibly slower than the economy in general. (Expert of economy from a bank)

Regardless of optimisation due to increased economic activity, the employment in general will rise. The emigration of workforce will continue and the availability of workforce will decrease. This will make the companies compete for human resources and the wages will grow until they reach a level where emigration will be less prevalent.

The unemployment will continue to gradually decrease due to the fact that entrepreneurs will require new positions and the fact that emigration will continue. (Expert of economy from a university)

The unemployment will continue to decrease. In five years it might be 6-7%. (Expert on issues regarding inter-sector labour market)

The employment will certainly grow and so will the average income. At some point, maybe even in 5 years, we will reach a level when the average income will be sufficient to stop further emigration of the working population. (Expert of economy from a bank)

Unfortunately, emigration will continue, because Latvia is unable to provide wages as high as in other countries. Hopefully, the emigration rate will gradually slow down, but it will still be high. Presumably we will experience re-emigration. There are signs of people returning due to the fact that here are possibilities to start a business. (Expert of economy from a university)

New technologies and automation will increase the demand for higher qualification and re-qualification. In the forecasts for the next 5-7 years, the experts of economics anticipate increase of demand for workforce and a deficit in several sectors. The greatest increase of demand will be for qualified IT and engineering specialists – both with vocational education and the higher education. Also for specialists who are able to work with the newest technologies.

There is already surplus workforce of lawyers, economists, and accountants. In the near future there will also be surplus of low-qualified workforce.

There will be a demand for highly educated specialists – in technical specialities, IT, engineering. This will be related to the industrial development due to successful industrial policy. In the near future there will be a deficit of high level engineers and highly qualified technical specialists. There will be a surplus of low-qualified workforce; people who have studied social sciences. However, people with higher education are flexible and will be able to study additional skills. More problematic will be the low-qualified workforce that will require a policy of programmes for re-qualification etc. (Expert of economy from a university)

There will be deficit of agriculture specialists, metal workers, mechanical engineers, operators of industrial machines, also for certain service professions – information processing, in the sectors of accommodation, food and tourism etc. (Expert on issues regarding labour market)

The demand will increase for technical specialists, engineers and programmers. There will be less demand for lawyers, and economists. In the creative industries the demand will grow, but in short-term there will be a surplus of advertising specialists, marketing specialists, sociologists. (Economics expert of economy)

There will be a higher demand for the following professions: IT specialists, engineering technical specialists, sales specialists, transport and logistics specialists, managers of manufacturing, medical specialists, technologists and manufacturing operators. There will be less demand for low-qualified workers. A deficit will be of IT specialists, engineering technical specialists and medical specialists. There will be a surplus of lawyers and psychologists. (Expert on issues regarding inter-sector labour market)

Summary

- Increase of productivity in the near future will create higher demand for qualified specialists and a decrease in the demand for low-qualified specialists.
- Specialists with vocational education are needed for the development of economics.
- The narrow labour market facilitates the structural unemployment – especially in the regions.
- Structural unemployment will remain, because the technologies and work methods will develop even faster.
- Increase of productivity and automation will facilitate the structural unemployment.
- There will be competition among the companies for workforce and this will increase wages. After the competition slows down, so will the rise of wages.
- The demand for IT specialists and engineering technical staff with vocational education rises and will continue to do so.

2.2.4. Possible risks for the future labour market and issues for Latvia

The ability of education system to adjust to the demands of the labour market.

There is currently a need for fast involvement of workforce. The universities and colleges are unable to do this fast enough, because they have to follow the study programmes. (Expert in employment issues)

At the moment, the vocational education is not sufficient to prepare people for the labour market. The system does not work. (Economics expert of economy)

There is already a deficit. The education quality is problematic. The colleges have to raise their standards. The problem is in the fact that nobody chooses to study engineering. (Economics expert of economy)

For a while now the education system has been unbalanced and it continues to work this way. There is not enough done to prepare for the changes in the labour market. (Expert of economy from a bank)

Consequences of demography problems, insufficient human resources.

Demographical situation: we are past the lowest point. If the demographic decrease stops then this should pose a great threat in the future. But the demographic situation and emigration are still the biggest risk factors. (Economics expert from a university)

If we continue the current development then the tendencies are negative. We can clearly see this at university level; of course, there won't be any children. This is not related to crisis, it is the demographic situation. (Economics expert from a university)

Emigration and ability to offer sufficient wages that would minimize emigration.

Emigration, inability to increase wages. (Expert of economy from a bank)

Big regional differences that hinder the economic development of regions and encourage emigration. Big difference in wages from other EU countries with

which we will compete for workforce (especially GB, IE, DE, NO). The fact that the average wage in our country is lower than the social benefits in others is a crucial problem in the competition for workforce. (Expert on issues regarding labour market)

Some of the people will return. The country can provide moving benefits, tax relief, but we really cannot guarantee a job. People will still leave, but what we want is a greater number of people who have come back than people who leave. (Expert on the issues of inter-sector labour market)

Issues of structural unemployment and sufficient measures for changing the situation.

Structural unemployment, ageing workforce and demography. The question is how we can combat structural unemployment. (Expert of economy from a bank)

There might be risks of deficit of workforce in certain specialities where we have been unable to provide our people with sufficient education and there are difficulties to involve foreigners. (Economics expert of economy)

There is still the risk of inability to solve the structural unemployment from the geographical, sectorial or functional perspective and the usual sector risks. A long-term unemployment of 12 % while at the same time new work places become available will definitely lead to immigration. (Expert of economy from a bank)

Insufficient workforce and possibilities to compensate the deficit.

Latvian workers will not be enough, we will need to import. (Expert in issues regarding inter-sector labour market)

The workforce deficit. In certain sectors and fields. Deficit in technologies, in long-term in health care. (Expert of economy from a bank)

Deficit of qualified employees and how successful we will be in integrating the imported workforce in the labour market. (Expert in employment issues)

Summary

Risks and anticipated problems of the future labour market:

- The ability of the education system to adjust to the needs of the labour market demand.
- Consequences of the demographic situation; insufficient human resources.
- Emigration and the ability to offer sufficient wages.
- Problems of the structural unemployment and sufficient measures to conquer this.
- Insufficient workforce and the possibilities to compensate the deficit.

2.2.5. Possible solutions for the identified future labour market problems offered by the Latvian experts of economics

The education system needs to be changed by adjusting to the demand in the labour market, putting more stress on vocational education. Ensuring longer career support and facilitating professional orientation.

With any education the situation is that the more complex it is, the more likely it is to fall behind. We need to re-evaluate school programmes so that there is clear basis until high school; high school to university and orienting towards a labour market with vocational education. (Expert of economics from a university)

I would make a clear distinction of vocational education. At the moment many ministries are responsible, but it cannot be coordinated, we need a reform in order to fulfil the market demand. There has to be a clear distinction between professional and vocational education. (Expert of economics from a university)

We need to ensure that the study choice of the youth is well-balanced (career support, professional orientation), better preparation and encouragement of interest in mathematics, natural sciences, IT and greater involvement of youth in the engineering. (Expert in issues regarding labour market)

A reform of the whole education system following the example of Finland or Germany. Encouragement of collaboration between companies, schools and parents. (Expert of economics from a university)

Re-qualification in order to ensure the preparation of the workforce to the changing demands of the labour market.

Of course, we need re-qualification. People need to study their whole lives. Companies need to cooperate with the state; the state cannot do this on its own; there needs to be cooperation with the private sector, which is complex, but necessary. (Expert of economics from a university)

Encourage people to re-qualify. State might provide help to the employers regarding re-qualification. (Economics expert of economy)

First of all there won't be immigration, we need to raise productivity and make investments in the education of our employees. (Expert of economy from a bank)

Encourage remigration and provide resources to make people come back to Latvia rather than spend resources to attract immigrants.

Active work with remigration plan, we need to try and get some of the people, who have left, back, especially those who left to raise qualification. A deliberate immigration policy is better than uncontrolled immigration. (Expert of economy from a bank)

Remigration policy. Effective social policy, in that we provide support to the new families with measures to improve demographic situation, free education at all levels, including pre-school; health care and stable retirement scheme. (Expert of economics from a university)

Compensation of the deficit workforce with qualitative immigration measures that ensures involvement of qualitative labour resources.

Subsidy mechanisms, regulated importation of workers from foreign countries. We need to evaluate the traditions, mentality, skills. (Economics expert of economy)

A qualitative immigration policy for medium and highly skilled specialists by offering the minimum wage 2 -3 times greater than the state's minimum wage. (Expert of economy from a bank)

We could attract specialists through universities; then we could prepare specialists who we need at a sufficient level and with sufficient tolerance level. That would be a great solution. There should be more programmes in universities in foreign languages. (Expert on employment issues)

More synchronized actions of state policy, initiative and state institutions in order to have a coordinated, targeted implementation of education, employment, regional and industrial policy.

We need to have an integrated approach and connection between state education policy, employment and industrial policies. It is important for state institutions and ministries to cooperate; to coordinate their actions and to have a common goal of economic development. (Expert on issues regarding labour market)

Regional employment policy; what do the regions need exactly. There need to be regional centres around which we focus the policy, certain reliefs in order to encourage new work places. (Expert of economy from a bank)

An involvement of the state in the labour market by making forecasts and being pro-active. (Expert on employment issues)

To involve workforce reserves in the labour market, for example, women's employment, people of pre-retirement age. This can be done in various ways, for example, by raising the retirement age or regulating tax issues.

Women's employment, the retirement age and an effective use of pre-retirement age and retirement age. (Expert of economy from a bank)

Rise of the retirement age. (Expert of economics from a university)

State support for employers. Also regulating tax issues. (Expert on employment issues)

Greater responsibility of the unemployed, raising of the prestige of vocational education (investments in infrastructure, development of education contents, greater involvement of employers). (Expert in issues regarding labour market)

Summary

In order to find solutions to the anticipated problems and risks in the labour market it is necessary to:

- Reform the education system so that it can react faster to the changes in the labour market demand.
- Encourage re-qualification so that workforce is prepared to the changing demands of the labour market.
- Encourage remigration and provide resources to make people return to Latvia.
- Compensate the deficit workforce with qualitative immigration measures.
- Ensure closer cooperation of various state institutions by implementing educational, employment, regional and industrial policies.
- Involve workforce reserves in the labour market.

3. Industry interview review

3.1. Interview process and discussed questions

The aim of the survey is to get an insight in the vision of representatives from various national economy sectors about long-term development trends of the sectors, the expected changes in labour demand, building new demand for skills, as well as labour ageing trends in the sectors they represent.

Two consecutive sub-activities were carried out within the survey:

1. In-depth interviews with 135 top level industry company managers, 45 industry experts and 45 association representatives;
2. 3 628 industry company phone interviews.

In order to get a comprehensive insight, the in-depth interviews and phone interviews were structured by 45 national economy sectors. The population of company phone interviews included economically active companies of private sector and public sectors with 5 and more employees. All companies with ≥ 250 employees were included and addressed in the selection.

Current trends, current situation, future trends were discussed in 3 blocks during the in-depth interviews with top level industry company managers, industry experts and association representatives. The interviews involved the following questions:

- *What are the development trends of their represented industry?*
- *How the general labour demand in the sector/company will change?*
- *What might influence employee turnover the most?*
- *How availability of labour will change?*
- *Which professions might be the most demanded in the industry, the company?*
- *Which professions might experience the most considerable change in the required skills?*
- *Which might be the new required and demanded skills?*
- *Which professions might experience lack of labour due to ageing?*
- *How explicit might be labour transfer between occupations of the same level?*

After carrying out the in-depth interviews and summarising the results in the relevant industries, questions for the phone interview form were prepared – individually for each of the 45 industries, identifying specific or additional questions to be further discussed on a phone interview during the company survey.

Phone interviews with industry companies involved the following questions:

- *How the number of jobs is going to change in the next 5-7 years?*
- *How do you evaluate future changes in the number of jobs for the following professions?*
(A list of relevant professions is included for each industry)
- *Are the following specialists expected to be available in the labour market?*
(A list of relevant professions is included for each industry)
- *What are the reasons for limited availability of labour in future?*

- *Will labour shortage affect the activity of the company?*
- *Is it possible to solve the issue of labour shortage by rising wages?*
- *Will your company be able to raise wages to attract the lacking/less available employees?*
- *What the state should do to ensure sufficient supply of the required labour?*

All industries had the same questions; however, different professions were suggested in the interviews of each industry according to the specific nature of the particular industry. The list of industry professions was compiled during the in-depth interviews, as well as respondents had a possibility to name the most popular professions in their company.

3.2. Development trends, risks and factors of national economy of Latvia

Development trends

The analysis of the opinion of large company managers, industry experts and association representatives given during the in-depth interviews outlines trends towards positive vision of the industry growth. It also highlights factors that determine the base for the development of each industry, as well as discusses the risks affecting the development of industries.

Future growth is to a great extent based on the ability of companies to introduce new technologies to make industrial processes more efficient and increase productivity of companies, as well as help them become more competitive.

Are we able to compete globally – that depends on our ability to find innovative technology solutions and ability to be sufficiently appealing to consumers. (Food industry expert)

These trends are particularly typical to manufacturing as it is a major growth factor that makes it possible to reduce costs – the number of jobs per one produced unit is going to decrease.

Efficiency is the second important thing we constantly work on. We used to need a lot of manual work. The company's policy involved huge investments, and purchase of complex yet efficient lines. We had to cut rapidly low-qualified workers and thus only high-qualified engineers remained leading to efficiency. (Food industry company manager)

The increase in productivity will reduce the tendency that the rising level of welfare and wages causes a drop in competitiveness of companies in domestic markets and export markets.

There will always be cheaper producers. It does not matter whether resource prices are lower in Korea or elsewhere. That is why we think about high-technology and complex products. (Light industry expert)

At the same time introduction of technology require both investments and workers that are able and know how to use with such technology.

Labour force should shrink. By introducing new technologies and raising the quality standards, we hope to reduce the number of jobs in the future, and the demand for highly-qualified specialists that are able to service such equipment is expected to increase. (Manager of manufacturing company of non-metallic mineral products)

To be more specific, all the companies that have been making investments are able, while those who have not are doomed to be shut down either because they will lack employees willing to work there for low wages or they will be forced to raise wages and be uncompetitive due to loses, and become insolvent. (Industry expert of manufacture of wood and products of wood)

The latest technologies will be introduced almost in all sectors, and only their impact on the growth of each sector will differ. Companies can use these trends for their own

benefit either by changing the product or the type of service, or shifting to remote services.

There are some tendencies of providing more services in digital channels. Services are provided through information technologies and these quality tendencies, such as human resources become more selective and lower in terms of the number of employees. (Financial and insurance sector expert)

Introduction of new products and services is one of the development trends of national economy. Many industries, like manufacturing and service industries need to find new niche products.

Latvian economy will never have mass manufacturing, for example, our industry will manufacture only niche products. (Light industry expert)

Light industry is expected to focus on technical textile, while the opportunities of rapid growth in accommodation and catering service industry are related to the development of congress and conference segment. Crop and animal production industry is likely to experience an increase in biological farming, “green” trends are expected to enter also forestry – future of this industry is linked with biomass and bioenergy production and therefore the industry is likely to experience transition from production of granules to production of woodchips.

Energy and all bioenergies – Europe is focused on promotion of green energy. It would be good for Latvia because it is cheaper than Russian gas. The industry will remain yet on different conditions – it must shift from paper to energy. Those types of wood used to produce paper are going to shift to energy. Furniture and wooden houses will be preserved since this is a lasting value. Latvia is the green land and it will always be. (Forestry and logging industry expert)

Formation of new cooperation forms in the future is also one of the development trends – both formation of business clusters and cooperation is expected to take place.

Some companies will try to cooperate and create business clusters to form common technology chains. Each of them will have a specific function, own product group or own range of services resulting in a common ready production. It is hard to say whether this cluster or technology chain will be developed within one country or several countries constituting the technology chain. These possibilities will make companies more competitive. (Industry expert of manufacture of metals and metal products)

A part of small-sized enterprises are expected to disappear or merge until only the “strong” and competitive businesses remain.

The industry will contract, and perhaps, there will no longer so many market participants. It will happen in the next 7 years. (Water supply; sewerage, waste management and remediation industry expert)

In the best case scenario, there are approximately 2000 construction companies left. These are solid companies with well-paid and skilled employees, competitive and larger than today. It is so typical to Latvians – we do not want a merger. Companies do not usually have only 3 main employees: a husband, a wife and one certified construction supervisor, those are not

companies. In the future, companies should be quite universal and ready for multitasking. (Building construction industry expert)

The role of sales is expected to increase in a number of industries, as well as the need to find new markets and to expand internationally, for example, by providing international financial and telecommunication services. It becomes easier along with the developing technologies.

We are now opening new branches, international branches, new services, and we are also discovering new opportunities. (Finance and insurance company manager)

Risks and factors affecting development of industries

Scientific research plays a major role in the processes related to finding niche products and promote introduction of innovative products in manufacturing.

If we look at product groups alone – there will be few companies that successfully compete with a know-how product. Real manufacturers of such know-how products are unlikely to appear in the next five years. Technological inventions need a scientific-research base. Latvia has the required base yet it is slightly underdeveloped. (Industry expert of manufacture of metals and metal products)

Scientific research industry pins hopes on the development of the industry since science has a more important role in the state documents for the next programming period than it had so far. Therefore, the state is expected to provide the basic tools necessary for the expected growth in the industry as it needs both appropriate infrastructure and skilled specialists who will leave the country without adequate financing.

I think that Latvia will follow the general tendency to place research among the important interests of the government of all developed countries. For example, Germany has invested huge resources in order to shift the country's policy from the use of nuclear energy to renewable energy. (Scientific research company manager)

The amount of available financing in private sector is expected to be sufficient for a productive cooperation between science and manufacturing, thus creating new products. Successful implementation of the abovementioned requires state support, for example, in form of tax allowances for businesses that make investments in scientific research.

Perhaps, there will finally be more private entrepreneurs to order useful research that currently constitute a quite small portion of Latvian science budget. By then, some financing will probably be accrued to make investments also in research not only in development. I have decided to put my faith in the good and perhaps the state will change its attitude towards investments in research. Entrepreneurs get no tax allowances or anything else in return for investments in science. Perhaps, there will be some other financial instruments. However, I do not believe that there will be any financial instruments functioning in the medium-term. They might appear in the long run, probably. (Scientific research industry expert)

Acquisition of enterprises and foreign capital inflow are associated with different risks, for example, a foreign company with large funds enters the market and acquires several local companies, thus making it difficult for other local companies to compete in the market.

If foreigners with large funds enter the market, they buy all companies. It is difficult to compete in a market with few players. (Telecommunication company manager)

State support is required to promote international competitiveness – ability to protect the interests of local producers internationally, for example, regarding issues of different EU quotas and regulations. Different EU regulations and quotas cause risks in a number of national economy industries in Latvia.

Prices, general EU policy, the World Trade Organisation as well. Currently, Europe is widely discussing the possibility to phase-out milk quotas with this organisation. Abolition of milk quotas might mean the end for a number of small producers. (Crop and animal production sector expert)

All the remaining fishermen are quite disappointed in the European programming period. They should at least strengthen the remaining fleet. But the expected funds are mainly allocated for hygiene. We would like to restore it but it is very difficult in terms of finance. There are high standards, the equipment costs thousands; we do not need the equipment but the Europe forces us to use it. (Fisheries company manager)

The quota system prevents fisheries from the growth. You cannot do more to make profit than fish processing. (Fisheries sector expert)

Another challenge is various restrictions imposed by the environmental protection requirements.

It is difficult to get more area for peat extraction. There are a number of factors such as environmental protection factor. There are a lot of different restrictions and different kind of prohibitions. The resources are sufficient as 10 % of Latvian territory consists of bogs. And here, approximately 3 % of all bogs are being used. There are considerable restrictions. I think that no other sector is subjected to such restrictions. For example, markets are definitely developing. (Mining industry company)

The EU regulations are often adopted without any understanding of the situation in Latvia. Problems in Latvia significantly differ from those in other European countries.

I do not think that we are exposed to such a risk. About 95 % of all bogs in Latvia are natural as they always have been. So, 95 % of the European territory consists of degraded bog. We have natural bogs, but we are forced to apply their laws. We are implementing all instructions from Brussels. They just look out of the windows and see a lot of degraded bogs to be restored. They have not even instructed as Latvia has already adopted a law. (Mining industry company manager)

Latvia has a number of advantages – access to raw materials, great geographical location and possibilities to find alternative energy sources to provide good growth

opportunities in the future through smart process management. Thus, the state is expected to protect the interests of domestic market and businesses and to improve tax policy, as well as improve the entire government policy.

As regards agriculture, there should be clear national policy – either we produce own products or send our people abroad to produce and import the same products. The EU support is not sufficient; we need also other support to absorb the money. (Agriculture company manager)

I believe that all the manufacturing and profitable companies in the country (besides, about 90 % of production is being exported which brings foreign money into the country to be spent here) should be a subject to a significantly reduced taxes. This would make us more competitive, the tax burden is a way to high. On the other hand, we rely on infrastructure, road condition and other things. I do not need the government to give us some market opportunities. We will find them on our own. We need infrastructure, good roads, adequate communications, quality education system, including vocational education. We need health care to feel safe. That is what we need from the state. (Mining industry company manager)

Bureaucracy should not increase. It already is a mess. New VAT laws every year and new amendments to the laws every half a year – my accountant cannot keep up with these changes. It makes it impossible to smoothly run daily business. The cash register programming and other things do not affect me but they affect traders. It is annoying, and therefore it would not be smart to increase and change bureaucracy. There more I spend my time completing some registers, reports and other bureaucratic papers the less time I have for manufacture. (Industry expert of manufacture of wood and products of wood)

The growth of certain sectors has received controversial opinions and even cautious opinions; there are some uncertainty regarding potential future development of specific sectors. A part of those sectors directly depend on public financing – education, health and social care, as well as state-financed segment of mass media, arts and culture.

The future completely depends on the state. At the moment, people are being unreasonably intimidated, thus making them to quit their jobs. They say that orphanages are to be closed. How does an employee feel hearing that his/her job is to be closed on the morning and evening news? (Social care company manager)

Without a prudent government policy and grants the problems in the majority of those sectors will escalate to such an extent that makes it difficult to attract quality labour force but also poses a threat to the existence of the sector.

No considerable growth is expected in the next 7 years because there is quite small increase in the government budget for the sector. (Health care company manager)

I have a political question – is human health an important national economy sector? (Health care company manager)

At the moment, development trends of arts are quite sad. If we leave it as it is, arts will become an entertainment and recreation, and it will disappear. (Arts, entertainment and recreation sector expert)

The sectors are already looking for solutions within themselves to prevent it, for example, health care and higher education are considering a possibility to provide international services like medical tourism and attracting foreign students.

There is free market outside the sector. The market is far from being regulated, while it does not operate within the sector. We need to grow to ensure market economy outside the sector and within medicine sector. It is the only way to bring the sector to life. I propose a solution – we need to introduce market service, economy, and tourism is one mechanisms. We purchase electricity for market price and sell the service for market price, thus letting the company to operate in a capitalist environment. (Health care company manager)

Medicine tourism is an effort to attract foreign patients as it is equal to other EU countries by technology development but have lower costs. We already offer the service, at the same time, we try to improve it. (Health care sector expert)

We are a part of the European Union with an education system recognized in the European Union; and there are unlimited market opportunities on the East, I mean, not Russia alone, but also China. Students come here to study. Better students than low-qualified people with no understanding of higher education. It is a matter of method whether we export the education service, thus allowing those students to study in their homelands and to come here to take examinations. (Higher education company manager)

Successful implementation of the growth plans in higher education is prevented by the laws that limit opportunities to open strong and solid programmes and to attract foreign teachers. Latvian higher education institutions are exposed to the risk of being locked in a confined area which will affect the quality of education.

We should avoid introduction of any laws for the sake of “doing something”. This principle should be limited to the minimum. Our neighbour will keep developing, while we will remain locked in a confined area. There are some opportunities, and I will say this once again, we will take those opportunities if we want to. But we will remain where we are at the moment if we do not use them. It is a political matter. (Higher education company manager)

If our politicians are unable to deal with this issue, foreign countries will simply outlive the education system of Latvia, with all relevant consequences: there will be a lot of branches of other universities and Latvian higher education institutions will vegetate somewhere. There will be some Latvian studies, some archaeologists and some dancers in bast shoes. (Higher education company manager)

Latvia needs a financial model to be able to pay teacher wages and provide an opportunity to develop research competence to keep the connection between teachers and the sector in which they educate young specialists, as well as to give students an opportunity to participate in research to ensure continuity in the sector.

It is connected with a significant increase in financing to remove the 40 hour workload per week from teachers as defined at the moment. So that teacher would have enough time to search information on the Internet, to go to library and to go on a business trip, participate in conferences and provide lectures to foreign students. Teacher mobility is very important. It is an essential aspect and a research – a teacher cannot just provide lectures, he/she must be a complex specialists, teaching, raising own qualification, research. The teacher might not work on the highest scientific level, but the research is connected with the needs and consumers. His/her research would not be done just because he/she want to do the irrational and unnecessary research but to involve students in the research. (Higher education sector expert)

Summary

Development trends of national economy of Latvia:

- Future development depends on the ability of businesses to introduce new technologies to make all processes efficient, increase productivity and competitiveness of businesses.
- Latest technologies are going to enter almost all sectors of national economy, yet it will be particularly topical in manufacturing.
- Creation of new products and services and introduction of niche products will be one of the development trends of national economy in a number of sectors.
- Both crop and animal production and forestry will experience entry of “green” products and transition to this type of products, the number of biological farms is expected to grow, production of biomass and bioenergy, transition from production of granules to production of woodchips.
- New cooperation forms, mergers and disappearance of weaker businesses are expected in future.

Factors affecting the development:

- Latvia has several advantages – access to raw materials, for example, timber, great geographical location and possibilities to find alternative energy sources to provide good growth opportunities in the future through smart process management.
- Factors that depend on the government decisions have been recognized as important, and therefore, the state is expected to:
 - Protect the interests of local producers on international level;
 - Protect the interests of domestic market and businesses;
 - Improve tax policy;
 - Improve general government policy.
- Scientific research plays a major role in the processes related to finding niche products and promote introduction of innovative products in manufacturing, and therefore private sector is expected to have sufficient financing for a productive cooperation between science and manufacturing. State support in these matters is important as well.

Risks:

- Foreign capital inflow might reduce the possibilities of local enterprises to remain competitive;

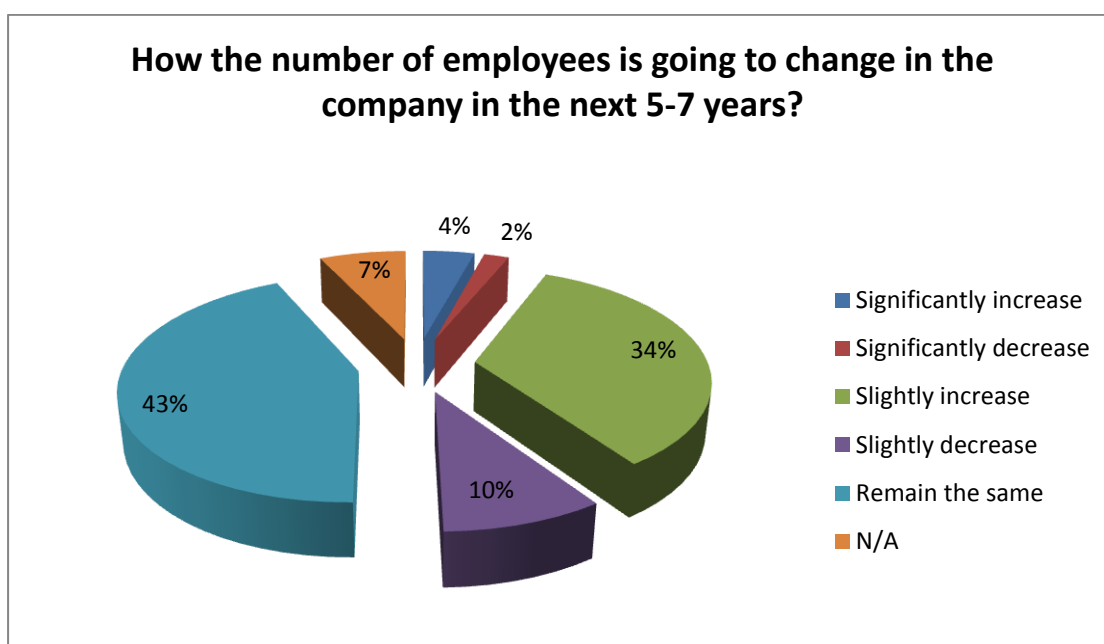
- EU quotas, regulations and restrictions;
- Without a prudent government policy, changes in the law and grants the problems in the majority of the sectors directly dependent on public financing will escalate to such an extent that makes it difficult to attract quality labour force but also poses a threat to the existence of the sector.

3.3. Changes in labour demand

General demand

Respondents of the in-depth interviews of industry surveys forecast that the number of workers might increase; however, the increase is expected to be balanced – no rapid change is expected. This trend is proven also in the industry phone interviews (see chart 1) – majority of respondents expect the number of employees in their companies to remain unchanged in the next 5-7 years (43 %). Yet, 34 % expect the number to slightly increase, while 4 % foresees a significant rise in the number of employees. The number of employees might decrease in 10 % of the surveyed companies; a significant drop in the number of employees is forecasted by 2 % of respondents, while 7 % did not answer to this question.

Chart 1



They will more focus on qualitative changes in labour issues instead of quantitative ones.

Highly-qualified employees will be definitely more demanded, while low-qualified employees will be less employed. (Food and beverage industry expert)

The increase means that the number of employees will probably remain the same but there will be other, higher requirements. (Manager of manufacturing company of non-metallic mineral products)

The structure of qualification will change. Qualified employees will be more demanded. (Machinery, equipment and vehicle manufacturing industry expert)

Respondents of the in-depth interviews of industry surveys expect the number of jobs to remain at the current level.

It will not change. I think it will not significantly change. (Gas supply, heating and air conditioning company manager)

I think it will not significantly change in the next five years. It will remain at the current level will remain. (Mining industry company manager)

It will not increase. We should look at it in proportion to the number of population and the demographic forecasts. And the forecast does not suggest that we will need medical labour force. (Health care company manager)

I do not expect any significant changes in the future. Educational institutions will require labour force all the time. The industry needs and will always need employees. (Preschool and primary education company manager)

Table 1

Expected changes in the number of jobs in industry companies in the next 5-7 years						
Industry	Significantly increase	Slightly increase	Remains unchanged	Slightly decrease	Significantly decrease	N/A
A	2 %	20 %	48 %	13 %	4 %	14 %
B	0 %	33 %	33 %	14 %	10 %	10 %
C	7 %	36 %	37 %	8 %	3 %	9 %
D	2 %	20 %	59 %	16 %	2 %	0 %
E	0 %	35 %	45 %	18 %	2 %	0 %
F	4 %	42 %	40 %	12 %	2 %	0 %
G	3 %	35 %	52 %	7 %	0 %	3 %
H	2 %	30 %	50 %	16 %	1 %	0 %
I	0 %	39 %	49 %	0 %	0 %	13 %
J	11 %	41 %	37 %	9 %	3 %	0 %
K	8 %	26 %	41 %	18 %	8 %	0 %
L	0 %	30 %	68 %	3 %	0 %	0 %
M	3 %	47 %	36 %	7 %	3 %	4 %
N	11 %	51 %	24 %	7 %	7 %	0 %
O	0 %	39 %	47 %	11 %	0 %	3 %
P	2 %	19 %	44 %	10 %	0 %	26 %

Q	2 %	43 %	46 %	5 %	1 %	3 %
R	2 %	27 %	62 %	8 %	0 %	0 %

The results of industry phone interviews (see Table 1) prove the opinion expressed during the in-depth industry interviews. The number of jobs remaining at the current level is mainly expected in arts, entertainment and recreation industry and real estate activities.

The demand for labour force might remain balanced. It depends on the current policy. (Arts, entertainment and recreation company manager)

I believe that the demand will keep growing steadily. I expect no significant rise unless any huge global cataclysm happens. (Real estate activities company manager)

Despite the mixed opinions given in the in-depth industry interviews, the results of phone interviews show that representatives from administrative and support service sector forecast the highest increase in the number of jobs.

(The demand for labour will increase along with the improving market. (Administrative and support service company manager)

The overall demand for employees in the company is expected to remain unchanged as long as all the processes remain unchanged. No explicit rise or drop is expected. (Administrative and support service sector expert)

An increase in the number of jobs is expected also in construction, information and communication service, professional, scientific and technical service sectors, as well as health and social care sector.

We plan and expect the demand to increase along with introduction of technologies. European Union is expected to face a shortage of 700000 across the Europe, which is going to affect also our company. (Computer programming, consulting, data processing, Internet portal and other related service sector expert)

The demand will steadily increase by 10 % every year. (Engineering construction company manager)

In the optimal case scenario, there will be demand for labour. Specific nature of construction sector is all about manual work and manual tools. Every manual work is associated with certain number of people, and it is particularly explicit in construction sector. (Building construction sector expert)

According to the respondents' opinion of the in-depth industry interviews and industry phone interviews, the most notable drop in the number of jobs is expected in financial and insurance sector.

In terms of the number, we won't need more employees. The sector will use more technologies, automation and e-environment instead of people to service these systems. (Financial and insurance sector expert)

Jobs are expected to decrease also in water supply; sewerage, waste management and remediation sector and electricity, gas supply, heat supply and air conditioning sector where the situation is less explicit.

We will need significantly less employees when local governments will have more power to decide. (Water supply; sewerage, waste management and remediation company manager)

The in-depth interviews of transport and storage sector and the results of phone interviews show mixed opinions; despite the expected drop in the number of jobs, individual situation of each enterprise will determine whether the employment rate will remain at the current level or increase.

The demand will definitely grow in the next 7 years and in the long-term as well. It depends on the growth of overall economy – manufacturing and so on. (Land transportation and land transportation service activities sector expert)

The demand will grow along with the economic growth. If we will focus on our company, it will also develop on the account of other market participants. We are forcing low-quality or the worst service providers out of the market. In general, I expect the demand to increase along with the general tendency of economic recovery or resuming economic activities in the country. (Land transportation and land transportation service activities company manager)

It does not depend on our company, it depends also on turnover. For example, we have a certain territory and we are ready to accept cargo, the rest is up to customers. (Storage and warehouse management, cargo handling company manager)

The results of phone interviews of mining and quarrying show different labour demand trends in the future. Some respondents forecast a significant decrease in the number of jobs, while the possibilities to keep the number of employees at the current level or slightly increase the number are considered as equally likely. The in-depth interviews show similar trends, as well as give an opinion that the development of sector and labour demand depend on the government decisions.

It depends on being able to include energy in the use of local resources at national level. (Mining and quarrying industry expert)

Future labour market trends

Factors affecting changes on the number of employees and employee turnover is related to generation change, the lack of labour and introduction of technology.

Every company is developing in 2 directions at the same time – reduction of the cost price and production of new technology products. There will be new technology. At the moment, we have other boiler system that performs the same function but the construction is different. It is the same with people – 10 year ago they were simple, now they have improved and developed themselves, they know more and can do more. That is the generation change. Elderly people are not quick learners, we cannot quickly retrain them. It is only normal for young people to be able to learn quickly. (Gas supply, heat supply and air conditioning company manager)

Technology development and ageing. Technology development should compensate this ageing issue. Probably, technologies will never compensate the ageing. And ageing will have certain impact. (Electricity production, supply and distribution sector expert)

People will be required to learn new things. If they are not ready to learn more, they are most likely to be replaced by others that are opened for learning. (Telecommunication company manager)

Reduced availability of labour will increase competition over employees leading to a rise in wages and introduction of different motivation systems, as well as improvement of working conditions.

The amount of wages. If competitors will be able to offer higher wages, then we will definitely face certain rotation. (Administrative and support service company manager)

Bad working conditions force employees to want some changes. No reasonable person would change good working conditions and adequate wage if he/she wants to work. (Storage and warehouse management, cargo handling sector expert)

Employees are interested in long-term relationship with employers and their social guarantees. (Water transportation and water transportation service activities company manager)

If we leave living conditions of employees as they are, we will face a huge shortage of workers, because everyone will be working abroad. (Administrative and support service company manager)

People choose companies that offer higher wages and better conditions. That's a very typical and understandable human behaviour. If I have to do the same work under the same conditions, I would definitely choose the company that pays more. I would discuss the possibility to receive also some social guarantees with the employer. We live in a capitalist society. (Building construction sector expert)

Companies are expected to fight to hire employees and to focus more on their image to attract new employees and keep the existing ones.

Companies must actively fight to hire employees – they must become an attractive place to work for. (Storage and warehouse management, cargo handling company manager)

When you are looking for a good specialist, you are ready to steal and lure him away. I am sure that the issue is going to escalate in the future within the sector among different companies due to the labour shortage. (Furniture production company manager)

There might be labour shortage if the sector keeps focusing on starting a business and disregard perks, other than money, to motivate employees: training, education, participation and other things that might be the reason for employee turnover. Employees choose other organisations because they have heard that they offer employee motivation system. (Financial and insurance sector expert)

Employee turnover is likely to be affected by competition among local companies and foreign companies in terms of wages. Companies with foreign capital probably have more money to provide modern automated working environment. And therefore, they are more ready to attract employees and pay them, while local companies struggle to find free money to invest in development. (Financial and insurance sector expert)

Team relationship and attitude of a company's management is another essential factor affecting employee loyalty to the company.

They are trying to lure employees away by offering higher wages. Attitude and relationships within the team is the key bonus and play a major role. People do not want to leave the company just because of the wage. The wages should be increased quite significantly. (Furniture production sector expert)

Sometimes people quit their job because they feel unhappy. They do not like the boss. Common or different culture often is the deciding factor in an employee's decision to stay in a job or leave it. The general state of the company also plays a certain role; however, most of people take into account such factors as stability and culture. (Storage and warehouse management, cargo handling company manager)

Remuneration has always been an important factor. Location of the job, possibly close to home, is also an essential factor. And I think that company's manager is also an important factor. (Trade sector manager)

You company have to be able to encourage all employees from janitor to management to work as good and efficient as possible. I mean not only remuneration which is an important factor but also other factors, for example, microclimate, corporate culture. Good corporate policy is the best way to keep employees. (Manager of manufacturing company of computers, electronic, optical and electric equipment)

Professional mobility trends are likely to intensify as employees wish to expand their experience and try hand at several occupations and areas. New professional challenges and opportunities are going to become a crucial factor for change of job.

Every employee needs a challenge. Some employees are mainly driven by gradually growing wage. It is their challenge. Others are driven by professional challenges, etc. (Water transportation and water transportation service activities company manager)

Increasingly more people are going to change their lives. We are done with passing crafts and occupations from generation to generation. People will be more experienced. They will start with sales, and then move to manufacture or some other field of expertise. (Real estate activities sector expert)

It is easier for well-educated person to adapt to another area. A free and independent person wants to receive higher wage and more social guarantees. He/she feels less related to a specific company unless he/she feels nostalgic because the entire family has worked there. (Engineering construction sector expert)

We are raising young, quite ambitious specialists that are willing to prove themselves. There is a risk that other companies will try to lure them away at one point is going to remain. (Electricity production, supply and distribution company managers)

Changes in the demand for occupations and skills

Respondents of the in-depth industry interviews forecast that **agriculture, forestry and fisheries sector** will require agronomists, veterinarians, milking operators, managers, low-qualified workers and zootechnicians in agriculture.

Technologies are developing rapidly, and we have no idea what will happen to us after seven years. We might need those engineers to be competent in any field of expertise like zootechnicians, medium- and highly-qualified people. (Crop and animal production company manager.)

Forestry will face a growing demand for forestry equipment operators, timber truck drivers; yet, entry of heavier equipment in the future will bring along changes in the share of the demanded professions.

Manual work becomes less required; technologies are completely changing. (Forestry and logging sector expert)

Yet, fisheries sector will require fishing gears experts, fish processors and masters, fish farmers and management staff starting from deck officers, boatswains, captains, mechanics.

Representatives from agriculture, forestry and fisheries sector in their answers to phone interview questions (see Annex No.1) forecast that the number of jobs will remain the same in the most of professions, the only exception is sawmill operators.

The most considerable drop in the number of jobs is expected for:

- sawmill operators;
- vehicle drivers;
- timber truck drivers.

The highest rise in the number of jobs is expected for:

- machine operators;
- agronomists;
- managers.

Forestry equipment operator profession has received ambiguous reviews – the most of respondents expect the number of these operators to remain the same, while a part think that the number is going to drop and some believe that the number will increase. Low-qualified workers have received similar reviews.

As regards changes in the necessary skills, most of them are associated with technological changes which means that employees have to acquire new skills along with introductions of new technologies.

Robotic milking has completely different specific features and therefore it requires special training. (Crop and animal production company manager.)

Machinery operators not only have to be able to assess a tree but also to reprogram all forestry processes. (Forestry and logging sector expert)

Employees must know use new technologies and raise their qualification. Some employees were dismissed during our last optimisation because they did not know to use computer and unfortunately could not properly do their duties.. (Forestry and logging company manager)

Respondents of the in-depth interviews forecast that **mining and quarrying sector** will face a demand for electrical locksmiths, welders, vehicle drivers, loaders, managers, tractor drivers, excavator operators, industrial operators of different equipment and machines.

However, the results of phone interviews of this sector (see Annex No.1) show that future changes in the number of jobs in certain professions have received ambiguous reviews, the dominant trend is that the number of jobs will remain the same; the only exception is tractor drivers.

The most considerable drop in the number of jobs is expected for:

- tractor drivers;
- excavator operators;
- industrial machine operators;
- vehicle drivers;
- medium-level managers.

Changes in the number of jobs in the following professions have received ambiguous reviews:

- locksmiths;
- welders;
- auxiliary workers.

A part of the surveyed companies expect a drop in the number of jobs for:

- vehicle drivers;
- tractor drivers;
- medium-level managers.

Changes in the necessary skills are related to technology knowledge.

Employees will need technology knowledge, programming, technical equipment programming. They have to be able to deal with mechanism programming and not to develop computer software. (Mining industry expert)

Employees are going to service modern equipment, and therefore they need appropriate knowledge, either electrician or machinery operator, he must have the basic computer skills. (Mining industry company manager)

Respondents of the in-depth interviews of **manufacturing** have provided mixed forecasts of labour demand since this sector included different sub-sectors of manufacturing with quite different specific nature of the work.

Analysis of the results of phone interviews (see Annex No.1) show that the following occupations are among the most demanded occupations in the sector – carpenters, machine operators, engineers, IT specialists, constructors, mechanics, production supervisors, locksmiths, welders, sales specialists and food technology specialists.

As regards changes in the number of jobs in the sector, majority of respondents expect the number of jobs to remain the same in the most demanded professions, the only exception is machine operators.

The highest rise in the number of jobs is expected for:

- machine operators;
- IT specialists;
- mechanics;
- sales specialists;
- engineers;
- food technology specialists;

Changes in the number of jobs in the following professions have received ambiguous reviews:

- constructors;
- production supervisors;
- welders.

A drop in the number of jobs is most often expected for:

- welders;
- constructors;
- carpenters;
- production supervisors.

The answers of the in-depth industry interview respondents regarding the necessary changes in skills are mainly related to the change and modernisation of technologies. People will need to have technology knowledge, IT skills and language knowledge.

People must have knowledge of materials, as well as knowledge of modern technologies. They will need these skills in the future. (Expert of manufacturing of wood and products of wood)

From technical knowledge to higher knowledge. It means that people must have high-technology knowledge; they have to be able to work with advanced computers, and have knowledge of production line programming. (Food and beverage industry company manager)

Although everything is developing – the basis is more or less the same. New technologies and methods keep entering the market all the time. (Expert of manufacture of non-metallic mineral products)

Employees must be able to learn new things and keep up with the latest trends – new technologies, new equipment, new opportunities and new systems. And they have to be able to skilfully use it all. (Chemical industry expert)

As I mentioned before – IT skills are important. Everyone should know it at user level. However, better and deeper knowledge would be more appreciated. IT is everywhere. Employees also need foreign language knowledge. (Light industry sector expert)

The demand for IT skills is going to increase and become important also for daily operators. (Paper production and publishing sector expert)

We operate in international environment and we definitely have insufficient knowledge of foreign languages. (Chemical industry company manager)

The necessary skills are going to change in connection with new technologies and innovation, as well as introduction of new products and materials.

Technology knowledge, all skills related to laboratory measurements, equipment, recipes and processes like innovation and entry of new products in the market, as well as knowledge of this product. (Manager of manufacturing company of non-metallic mineral products)

New instructions, new ways and new technologies are being constantly developed to help us do the job faster and more efficient. New materials are being developed and invented all over the world. You have to be able to adapt and learn new things. (Manager of manufacturing company of metals and metal products)

Respondents also emphasize the need to be efficient and have quality skills, and every employee must have a deep expertise in their area.

I believe that people in all occupations must become more efficient and be more responsible and provide higher return on their work. And they definitely have to be specialised in their sector. (Manager of manufacturing company of wood and products of wood)

People must be able to understand quality standards. I do not care about the product. It all depends on quality. I do not care what those engineers are doing as long as they understand the quality. (Manager of manufacturing company of machinery, equipment and vehicles)

Ability to be flexible and adapt to changes and different human qualities and creative thinking will play a major role as well.

Increasingly more people have to be able to adapt to changes. It is more flexibility-related issue, ability and desire to adapt. To my mind, it will be one of the essential skills. (Manager of manufacturing company of non-metallic mineral products)

Ability to think and achieve any objective (Paper production and publishing company manager)

Creative work and innovation skills. Creative work means technical creation and knowledge creation, as well as image or design creation which are quite disregarded in Latvia, though it plays a major role in chemistry. (Chemical industry expert)

Sales skills are going to become important.

Sales skills – these skills have always been important but they are going to become even more important as we are actively expanding our activities. No company can exist without sales. (Chemical industry company manager)

Respondents in the in-depth interviews in **electricity, gas supply, heat supply and air conditioning sector** expect overhead line construction specialists, cable line construction specialists, protection relay personnel, electricians, electricians with IT knowledge and higher qualification, technicians, engineers, financial specialists, economists, engineers – electricians, boiler house supervisors, technical personnel, network service personnel, production supervisors, process engineers, automation specialists, IT specialists, machine operators, chemists, environmental engineers, locksmiths and plumbers.

Respondents of phone interviews forecast (see Annex No.1) that the number of employees will remain the same in the majority of professions.

The only exception is professions expected to face an increase in the number of employees:

- IT specialists;
- electricians;
- wiring electricians;
- energy specialists.

Changes in the number of financial specialists – economists have received mixed reviews – it is a profession to face the most notable drop in the number of jobs out of all professions in the sector; however, there are some companies in the sector that expect a slight increase in the number of specialists of the sector.

Respondents of the in-depth interviews expect the role of education to increase – employees, including workers will have to have better knowledge.

Employers require special education and eventually, people will be required to have deeper knowledge. (Gas supply; sewerage, waste management and remediation company manager)

Increasingly more technology and IT-related skills are going to be required. People will not only have to know them but also they also have to be flexible and able to keep up with the latest achievements.

Employees have to keep up with the latest trends, be flexible, change processes, know the latest technologies, keep up with and quickly adapt to changes. They also have to be particularly stress resistant. They have to start getting used to it. (Gas supply; sewerage, waste management and remediation sector expert)

Deep knowledge of IT technologies and automation will be needed as additional subjects not only in speciality but also in heat energy technician occupation and other occupations. (Gas supply; sewerage, waste management and remediation company manager)

Understanding of the market, language knowledge and ability to work at international level are recognized as important qualities.

Understanding of the market since Latvian market is focused on integration into the EU market. Employees must have high levels of English proficiency since international cooperation is an important part of our activities. (Electricity production, supply and distribution company manager)

Management competence will also play a major role.

Managers should focus on motivating employees and involving them in the work, encouraging them to take responsibility. (Gas supply; sewerage, waste management and remediation sector expert)

Respondents of the in-depth interviews expect specialists with technical knowledge, managers, salespersons, garbage truck drivers and waste sorters, construction workers, plumbers, operators, locksmiths, environmental specialists, IT specialists

and engineering technical specialists to be demanded in **water supply; sewerage, waste management and remediation sector**.

Respondents of phone interviews forecast (see Annex No.1) that the number of jobs will remain the same in the most of professions.

The highest increase in the number of jobs is expected for:

- engineering technical specialists;
- environmental specialists;
- locksmiths;
- lawyers.

Some professions have received ambiguous reviews on the changes in the number of jobs despite the expected increase in the number of jobs. The following professions are expected to face the most significant drop on the number of jobs in the sector:

- IT specialists;
- Construction workers;
- Machine operators;
- plumbers.

As regards the changes in necessary skills, respondents of the in-depth industry interviews expect them to be mainly connected with the changes in technological processes and introduction of new processes in the sector, for example, waste sorting and recycling.

The sector keeps changing all the time, new materials and new tools are constantly entering the market. (Water supply; sewerage, waste management and remediation company manager)

Some new technologies and specific occupations are emerging that have not been needed so far. Currently it is hard to say which occupations will be needed and when. (Water supply; sewerage, waste management and remediation sector expert)

Since waste must be sorted, we do not employ any chemists. Probably, the sector will experience changes because waste must be sorted depending on the type, you must know what type of waste can be burned. Currently, we do not perform this type of sorting. (Water supply; sewerage, waste management and remediation company manager)

Necessary skills of customer service will change due to technology development and communication.

Customer service will be provided by humans instead of pressing phone buttons. It is mainly related with technology development and service. (Water supply; sewerage, waste management and remediation company manager)

Respondents of the in-depth industry interviews have mixed forecasts regarding labour demand in **construction sector**, listing various professions. The most popular professions in the sector include qualified workers, concrete workers, welders, bricklayers, plumbers, crane operators, construction assemblers, dry construction specialists, painters, road specialists, railroad assemblers, construction engineers, engineers, grader operators, asphalt paving workers, flux workers excavator operators and rolling workers.

Respondents of phone interviews forecast (see Annex No.1) that the number of jobs will mainly remain the same in the sector.

The highest increase in the number of jobs is expected for:

- equipment/machine operators;
- construction work supervisors;
- dry construction specialists;
- project managers;
- construction engineers.

The forecasts of changes in the number of low-qualified workers differ from company to company. The number of jobs for low-qualified workers is expected to decrease more than for other professions. At the same time, there are some companies that expect the number of jobs to increase.

As regards the changes in necessary skills, respondents of the in-depth industry interviews believe that employees must have knowledge of the latest industry trends.

Equipment, materials and use of materials are constantly developing and you have to keep up with these trends. (Building construction company manager)

You have to keep up with the development and trends of the sector and constantly learn new thing. At the moment, there is no one able to work with sliding form work in Latvia, while it is a common technology across Europe. There is a number of works commonly used in Europe for a long time but completely unknown in Latvia. (Building construction company manager)

Respondents have mixed opinion on the future skills like computer skills and use of technologies. These skills might be either needed or not.

I do not see any growth whatsoever. The entire Europe and the rest of world are facing stagnation. I neither expect any new technology to be developed nor any new material to appear. (Building construction sector expert)

There might be different software. As regards workers and specialists working at construction sites, no computer will help them. (Building construction sector expert)

The tendency is quite clear – physical and manual work is going to become less needed, while all processes are going to become automated, mechanical and technological. There will definitely be an increasing demand for knowledge of equipment, technologies and mechanisms – these skills will be crucial to be competitive in this sector. (Engineering construction sector expert)

Respondents of the in-depth interviews in **wholesale and retail trade; repair of motor vehicles and motorcycles** expect a demand for highly qualified specialists – commodity experts, pharmacists, salespersons, accountants, goods purchasers, product category managers. Cashiers, assistants, cooks, bakers, shop managers, retail trade specialists, low-qualified workers – warehouse workers, auxiliary workers and IT specialists are also expected to be demanded in the future.

Respondents of phone interviews forecast (see Annex No.1) that the number of jobs will mainly remain the same in the most of demanded professions in the sector.

The highest increase in the number of jobs in the sector is expected for shop manager profession; however, it is an ambiguous opinion since the number of jobs is expected to remain unchanged.

There are controversial opinions on the changes in the number of jobs in driver occupation. This occupation is expected to experience the most considerable decrease and increase in the number of jobs in the sector. The number of jobs is equally likely to increase or remain unchanged.

As regards the changes in necessary skills, respondents of the in-depth industry interviews believe that introduction of new machines and new products will bring along a need for competent employees in these latest achievements who know how to use latest technologies and apply IT skills.

Technologies will keep developing. There will be other software and other equipment at stores. (Trade company manager)

New IT knowledge might enter the market. Some products have already been introduced and they might enter the market at some point. (Trade company manager)

Use of modern technologies. (Trade sector expert)

All the skills related to Research and Development – it applies not only to science but also to products and services. Currently, they are underdeveloped in Latvia, and therefore Research and Development skills will be needed. (Trade sector expert)

There already is a lack of IT programming skills. And these skills will be needed also in the future. (Trade sector expert)

Respondents of the in-depth industry interviews have mixed forecasts regarding labour demand in **transport and storage sector** since this sector has various transport sub-sectors with different specifics of work.

The results of the industry phone interviews (see Annex No.1) show that the most demanded professions in the sector include vehicle drivers (long-distance drivers), category C, E drivers, IT specialists, forklift truck operators, category D drivers, electricians, engineers, qualified taxi drivers, mechanics and warehouse workers.

Phone interview respondent expect the number of jobs to mostly remain unchanged in the sector.

The highest decrease in the number of jobs is expected for qualified taxi drivers.

The highest increase in the number of jobs is expected for warehouse workers.

Respondents of the in-depth industry interviews forecast the following skills to be needed in the future – ability to use latest technologies, adapt to automation processes and engineering technology knowledge.

The sector is tended to constantly progress upwards. There will be smarter technologies introduced in the sector. (Land transportation and land transportation service activities sector expert)

All the skills related to the introduction of new technologies. (Railroad transportation company manager)

There will be new skills in all occupations. All processes are likely to become automated and visualised; data exchange between the heaven and earth will not be based solely on voice communication. (Air transportation and air transportation service activities sector expert)

People will need new technology development-related skills for work. (Water transportation and water transportation service activities sector expert)

Employees will need higher qualification and understanding of the progress and latest achievements in their profession, as well as ability to use computer, software and knowledge of several languages.

Skills are most likely to improve in terms of quality - qualification. (Water transportation and water transportation service activities company manager)

Skills related to computer technologies, IT systems and automation will be needed. (Storage and warehouse management, cargo handling sector expert)

Future employees will need to have good communication skills.

Technology development is sapping the relationships between humans – customer service factors. Therefore, I believe that we might face a lack of human factors. (Postal and courier activities company manager)

New technologies are believed to create new professions in the sector. These professions require proper specialists with the innovation-related knowledge and skills.

New occupations might appear. There are some occupations that did not exist 10-15 years ago. I think that some occupations may derive from specific occupations and then grow into a permanent occupation. (Water transportation and water transportation service activities company manager)

Respondents of the in-depth interviews of **accommodation and catering service sector** believe that engineers, cooks, pastry-cooks, bakers, customer service specialists might be the most demanded professions in the sector.

Results of phone interviews of the sector (see Annex No.1) show that the number of jobs is mainly expected to remain unchanged.

The highest increase in the number of jobs is expected in bartender profession.

Respondents of the in-depth industry interviews believe that in the future, employees will need to be able to learn independently and develop their personality and employee qualities, use business skills in work. High customer service standard, communication skills, including good knowledge of languages also play a major role. Future employee of this sector will need IT knowledge as well.

Employees of any occupation must know languages and have IT skills. Novelties are more common in the hospitality sector. (Accommodation and catering service sector expert)

For instance, an employee is focused on results when he develops his abilities and is ready for open and proper communication. (Accommodation and catering service sector expert)

High customer service standards are important. These might be both innovations, such as innovative corporate management, and technologies, new products and payment systems. (Accommodation and catering service company manager)

Future employee must know how to use new technologies.

Technologies are constantly developing and we need people that are able to use those technologies. (Accommodation and catering service company manager)

Respondents of the in-depth industry interviews expect an increase in the number of jobs in **information and communication service sector** for IT specialists, telecommunication specialists, salespersons, system architects, journalists, producers, operators, radio deejays, editors, marketing specialists, advertising products managers, designers, computer specialists, layout designers, correctors, visual designers, analysts, programmers, computer technicians, project managers and new technology specialists.

According to the forecasts of the phone interview respondents (see Annex No.1), the number of jobs in the sector might either increase or remain unchanged since the results are similar.

The highest increase in the number of jobs is expected for:

- IT – telecommunication specialists;
- IT specialists;
- telecommunication specialists;
- customer consultants;
- sales specialists.

The most significant drop in the number of jobs is expected for medium-level managers.

Respondents of the in-depth industry interviews believe that employees will need IT knowledge and ability to use latest technologies in the future.

Specific IT skills (Telecommunication company manager)

I believe that technology-related skills are mainly going to change. (Radio and television programme production and broadcasting, news agency activities sector expert)

Technology development will lead to a demand for new skills. (Publishing sector expert)

Project management, sales skills, analytics, mutual communication and creativity will play a major role as well.

Internal cooperation and dynamics – people have to be able to agree with colleagues on the work to be done on the morning and work according to the plan. (Telecommunication sector expert)

Management skills, particularly communication skills, marketing skills and journalism skills will be essential. Multimedia technology skills will also be needed. (Radio and television programme production and broadcasting, news agency activities company manager)

Ability to generate ideas is needed. I have some ideas but I keep them to myself – it is not in the project, it is not relevant to the project. Probably, their fresh ideas are what the company needs. (Telecommunication sector expert)

Ideas and creativity (Radio and television programme production and broadcasting, news agency activities company manager)

This sector will require highly-qualified employees.

Higher qualification will be needed, especially for the top employees. (Telecommunication company manager)

There will also be need for employees who are able and want to constantly develop, improve their knowledge, ready for industry-related multitasking and know and are able to orient through large amount of information.

Multi-functionality will be needed. A person should be able to work in any environment to provide our information to our users. (Radio and television programme production and broadcasting, news agency activities company manager)

On the one hand, as a professional I want people to be able to analyse information, know the facts in a global context. They have to know both legislations and laws regarding violation of privacy. They have to be able to protect company's interests to avoid legal proceedings and meet all deadlines, to write and use communication tools to be on time and provide accurate information, and so on. (Publishing company manager)

Due to the rapid growth of technology in the sector respondents do not rule out the possibility of new occupations.

There might be completely new professional skills – I can only speculate of what kind of skills. (Computer programming, consulting, data processing, Internet portal and other related service sector expert)

Respondents of the in-depth interviews expect IT specialists, sales specialists, specialists in a specific - narrow area of expertise, digital and e-commerce specialists, investment product or investment solution specialists to be demanded in **financial and insurance sectors** sector.

Phone interview respondents forecast (see Annex No.1) that the number of jobs will mainly remain unchanged in the sector.

The most significant decrease in the number of jobs is expected for:

- IT specialists;
- risk underwriters.

Respondents have controversial opinion on the changes in the number of customer service specialist and sales specialist jobs. Both professions are expected to face the highest drop in the number of jobs in the sector; however, on the contrary, the number of jobs is expected to increase and the increase is likely to be relatively higher than the decrease in each occupation.

No significant increase in the number of jobs is expected in this sector.

As regards the future skill demands, respondents of the in-depth industry sectors find project management skills, ability to use new technologies, information technologies and knowledge of languages to be the most needed.

Distant customer service is likely to increase. People do not necessary need to communicate in person. There will be a growing need for electronic communication. (Financial and insurance company manager)

Skills related to distance services and online banking, new technologies might be needed. (Financial and insurance company manager)

Knowledge of foreign languages is still the most commonly required skill. (Financial and insurance sector expert)

I think that language knowledge is definitely one of the most commonly required skills. Information technology skills also are important as every employee of any occupation will be required to work with a lot of information technologies in the future. (Financial and insurance sector expert)

Project management skills will be essential. (Financial and insurance sector expert)

Respondents of the in-depth industry interviews expect real estate appraisers, agents, professional customer service personnel, salespersons, construction and plumbing workers, engineering technical personnel, property managers, building administrators, sweepers, real estate agents to be demanded in **real estate activities sector** in the future.

Results of phone interviews of this sector show (see Annex No.1) that the number of jobs in specific profession will remain unchanged in the future. No decrease in the number of jobs is expected in this sector.

Respondents of the in-depth industry interviews expect the following skills to be needed in the future – knowledge of languages, ability to work and independently adapt to new technologies, customer service, marketing skills, computer skills, including ability to work with databases and social networks.

Since we are a part of the EU people will be required to actively learn languages. (Real estate activities company manager)

Marketing and ability to adapt to new technologies and put them in practice in this sector. (Real estate activities sector expert)

Respondents of the in-depth interviews of **professional, scientific and technical service sector** expect a demand for highly qualified specialists in the future – researchers, medicine specialists, information technology specialists, consultants, analysts, programmers, project managers, digital and interactive solution development specialists and marketing specialists.

Based on the phone interview results (see Annex No.1) the number of jobs is expected to remain unchanged in the sector.

The highest increase in the number of jobs is expected for:

- financial consultants;
- revision specialists;

- engineers;
- lawyers.

Respondents have mixed opinion on the changes in the number of accountant jobs. This occupation is expected to face the most significant drop in the number of jobs, at the same time, it is among the occupations that are most likely to face a considerably increase in the number of jobs.

Biologists are another occupation that has received controversial opinions on the changes in the number of jobs. Phone interview results show that it is one of the occupations that are most likely to face a significant decrease in the number of jobs. However, a part of respondents expect the number of jobs to remain unchanged or the increase in the number will exceed the decrease in the number of jobs in this occupation.

Opinions on the increase in the number of business analyst jobs are equally controversial. The increase is expected to be one of the highest in the sector, at the same time, there is an opinion that the number of jobs will remain unchanged in the future.

Respondents of the in-depth interviews expect future employees to know how to use the latest technologies, computers, higher qualification, language knowledge, marketing, analysis, financial management.

Technologies are going to enter the market and therefore employees need to raise their qualification and learn new skills. (Scientific research company manager)

People will definitely need to know various languages knowledge. Not everyone will speak English in the future. Scandinavian, French, German languages also are widely spoken worldwide. (Scientific research sector expert)

I believe that new technology-related skills are most likely to change in the future. (Scientific research sector expert)

People will definitely need to have good computer skills to work with the new and expensive technologies. Computer skills should already be taught in school. (Technical service and advertising company manager)

Future skills demand includes also communication skills and creativity.

People will need communication skills since science is already trying to find new niches. It is important for scientists to be able to tell about and present their work. Creative skills are definitely going to be needed. (Scientific research sector expert)

Employees must be flexible, multifunctional, and able to adapt to the latest requirements and learn new knowledge and competences.

Scientists will have to be more flexible, able to adapt to new technical solutions. (Scientific research company manager)

Any sector related to Europe will have to adapt to changes which means that they have to change skills and adapt to European processes. (Legal and accounting service sector expert)

Employees have to shift to understanding the situation in general, to change their competences flexibly and become competent in a wide range of activities instead of focusing narrowly on one activity. Employee skills should be improved horizontally. (Legal and accounting service company manager)

Development of the sector might create new occupations.

There might appear a specific occupation like professional science managers. (Scientific research sector expert)

Respondents of the in-depth interviews of **administrative and support service sector** expect security workers, procurement specialists, salespersons, marine pilots and mechanics to be demanded in the sector.

Phone interview results of the sector show (see Annex No.1) that the number of jobs is expected to remain unchanged in the future in the majority of occupations.

The highest increase in the number of jobs is expected for trade workers; however, this opinion is very close to the opinion that the number of jobs will remain unchanged in the future. The changes in the number of jobs in the occupations are quite controversial.

There are controversial opinions on the decrease in the number of jobs in the following two occupations – medium-level managers and security workers. The number of jobs is expected to remain unchanged in both occupations; at the same time, the increase in the number is likely to significantly exceed the decrease in the number of jobs.

As regards the changes in the needed skills, respondents of the in-depth interviews expect employees to have knowledge of the latest technologies, IT technologies, language knowledge, and management skills.

All technology-related skills will be needed, for example, ability to learn new technologies, concentration and self-control. (Administrative and support service company manager)

IT technologies, language skills, management skills – current trends will remain. (Administrative and support service sector expert)

Respondents of the in-depth interviews of **public administration and defence; mandatory social insurance sector** expect tax specialists, consultants, auditors, IT specialists, investigators, police patrol officers and financial specialists to be demanded in the sector.

According to the forecasts of the phone interview respondents (see Annex No.1), the number of jobs is mostly expected to remain unchanged.

The highest increase in the number of jobs is expected for:

- police patrol officers;
- project managers;
- IT specialists.

Respondents of the in-depth interviews expect future employees to need the following skills – knowledge of information technologies, strategic thinking, risk analysis skills, communication skills and foreign language knowledge, lawyer and economist abilities; in other words, a multifunctional employee.

Language knowledge will be needed in both medium-term and in long-term because of job opportunities in Europe. People should be able to combine skills and competences, for example, economists should have also lawyer’s qualifications and good computer skills. Highly erudite people will be needed in the sector. (Public administration and defence; mandatory social insurance company manager)

I think that communications skills and definitely computer skills will be needed. (Public administration and defence; mandatory social insurance sector expert)

Respondents of the in-depth interviews of education sector expect teachers, preschool teachers, teacher assistants, physicians, assistants, speech therapists, psychologists, IT specialists, social educators, physiotherapists, ergotherapists, teachers of professional subjects, chemists, teachers of special subjects, computer system programming technicians to be demanded in the sector.

Phone interview results of the sector show (see Annex No.1) that the number of jobs is expected to remain unchanged in the future. No significant drop in the number of jobs is expected in education sector.

The highest decrease in the number of jobs is expected in preschool teacher and biology teacher occupations. However, the changes in the number of preschool teacher jobs have received mixed reviews – this occupation, more than others, is expected to face an increase in the number of jobs more than other occupations.

Respondents of the in-depth interviews expect future employees to need the following skills – knowledge of foreign languages, specific skills of occupations, professionalism, and ability to independently learn and develop professional skills and competences.

As regards English, teachers cannot use all those resources available on the Internet in English without knowing English. More and more people will need to improve language proficiency. (Secondary education sector expert)

Teachers will be required to learn more and keep up with children. (Preschool and primary education company manager)

As regards teachers, they have to be personalities, creative and able to work and adapt teaching materials to children in order to ensure development. (Preschool and primary education sector expert)

This sector will require knowledge of the latest technologies, IT; employees must know how to use and put these technologies in practice.

Employees will need all the skills related to the use of technologies. Teachers of technical subject will have to change their skills, specific professional skills. (Secondary education company manager)

The demand for information technology skills will definitely grow. Therefore, knowledge of technologies is becoming a standard. (Secondary education sector expert)

Skills will definitely change; teachers will probably need to adopt modern skills, mainly in relation to introduction of technologies, interactive whiteboards, IT and foreign languages. (Preschool and primary education sector expert)

Respondents of the in-depth interviews of **health and social care sector** expect certified doctor's assistants, doctors, drivers, nurses, psychiatrists, neonatologists, rehabilitation specialists, social educators, social carers, social assistance organizers, physiotherapists, psychologists, teachers, speech therapists, movement therapists.

Phone interview results of the sector show (see Annex No.1) that the number of jobs is expected to remain unchanged in the future, except rehabilitation specialists, social carers and nurses – the number of jobs is expected to increase in these occupations.

The highest increase in the number of jobs is expected for:

- rehabilitation specialists;
- social carers;
- social workers;
- social rehabilitation specialists;
- nurses.

There are mixed reviews on the changes in the number of administration personnel jobs. This occupation is the most likely to face a drop in the number of jobs out of all occupations of this sector. At the same time, other respondent expect an increase in the number of jobs.

Respondents of the in-depth interviews expect future employees to know how to use the latest technologies, to have communication skills, knowledge of foreign languages, and knowledge of patient safety and development of safe environment.

Technologies are constantly developing and they will keep developing rapidly in the near future resulting in a demand for personnel with special education (Health care company manager)

Information technologies are already being introduced in schools. Language skills also are required. We are already working on it. (Social care company manager)

Considering the movement of people and tourism opportunities and development, foreign language proficiency might be a crucial skill. (Social care company manager)

All the skills related to service quality will be needed. (Social care company manager)

Respondents of the in-depth interviews expect bibliographers, administrative personnel, specific technical personnel, archivists, archive management specialists and IT specialists to be demanded in **arts, entertainment and recreation sector**.

Phone interview results of this sector show (see Annex No.1) that the number of jobs is expected to remain unchanged in the future.

The highest increase in jobs is expected for:

- choir singers;
- engineers of scenography;
- orchestra artists;
- trainers.

Respondents of the in-depth interviews expect future employees to need knowledge of the latest technologies, their application, IT skills, and information processing skills.

Information skills are already changing. These skills are expected to keep changing in the next few years in the field of information processing due to the change of standards, laws and working principles. These information resources are changing also in service sector, and therefore people have to constantly improve their knowledge. (Arts, entertainment and recreation company manager)

IT skills and ability to draw administrative acts and at least minimum legal knowledge will be needed. (Arts, entertainment and recreation company manager)

All the skills required by information technologies, data entry principles – data processing will be needed. (Arts, entertainment and recreation company manager)

An actor should not only be smart and able to dance and sing but also be familiar with the latest modern technologies and be able to generate text. The demand for these skills is most likely to grow due to the synthesis of art. (Arts, entertainment and recreation sector expert)

The expanding commercial repertoire and the growing number of musical shows will lead to an increased demand for universal actors - good at acting, dancing and singing. (Arts, entertainment and recreation sector expert)

Summary

- The demand for labour might increase in the future; the increase is expected to be even though – no rapid changes are expected.
- A particular focus will be placed on qualitative changes in labour demand instead of quantitative ones; education and qualification level will play a major role.
- Factors affecting the changes in the number of employees and employee turnover are associated with generation change, labour shortage and introduction of technologies.
- Reduced availability of labour will increase competition over employees leading to a rise in wages and introduction of different motivation systems, as well as improvement of working conditions.
- Professional mobility trends are likely to intensify as employees wish to expand their experience and try hand at several occupations and areas.
- The number of employees is expected to remain unchanged with a tendency to increase in the next 5-7 years in national economy sectors.
- IT specialists are the most wanted occupation in different sectors.

- The most important and needed future skills include skills associated with knowledge and use of latest technologies, including IT.
- Companies need multifunctional employees – employees have to be able to perform multiple tasks, competent in multiple areas of expertise, possess the skills and competences of several people.
- The most of sectors are expected to require employees who are able to change and adapt to changes in their speciality, as well as wish and ability to keep up with the latest trends in the sector.
- Respondents often mention communication skills – cooperation within a team, quality customer service.
- Knowledge of languages is recognized as an important communication skill. Employees are expected to know Latvian, Russian and English.

3.4. The availability of labour and expected future labour market risks

3.4.1. General trends of the availability of labour

Respondents of the in-depth industry interviews have controversial opinion on the availability of labour. Some company managers and experts believe that there will be no availability problems in the future.

There will always be workers ready to come and work. I don't think that it will ever change. (Water supply; sewerage, waste management and remediation company manager)

I think and hope that it won't become worse. Young people will study. Universities are no starting to focus on educating more engineers instead of lawyers. (Gas supply, heat supply and air conditioning company manager)

Yet, respondents of the in-depth interviews of other sectors see problems already and expect the problems to persist.

Workers will be available this year, next year and probably in the next 3 years. If the government won't change the policy, it is safe to say that there will be availability issues. It is my subjective opinion. (Mining industry expert)

If we keep it like that, nothing will ever change. More people will leave the country, and everything will keep going down, it won't get better. (Water supply; sewerage, waste management and remediation company manager)

We need education to change something. But why should I study when there are so much uncertainties about the future of the sector. (Fisheries company manager)

Regions are likely to face more issues of the labour shortage.

Riga will steal people from regions because there are more opportunities that in the countryside. We might face problems in the next 7 years. (Fisheries company manager)

It is particularly crucial problem in regions. It is easier to find employees In Riga but the situation is completely opposite outside Riga. (Health care sector expert)

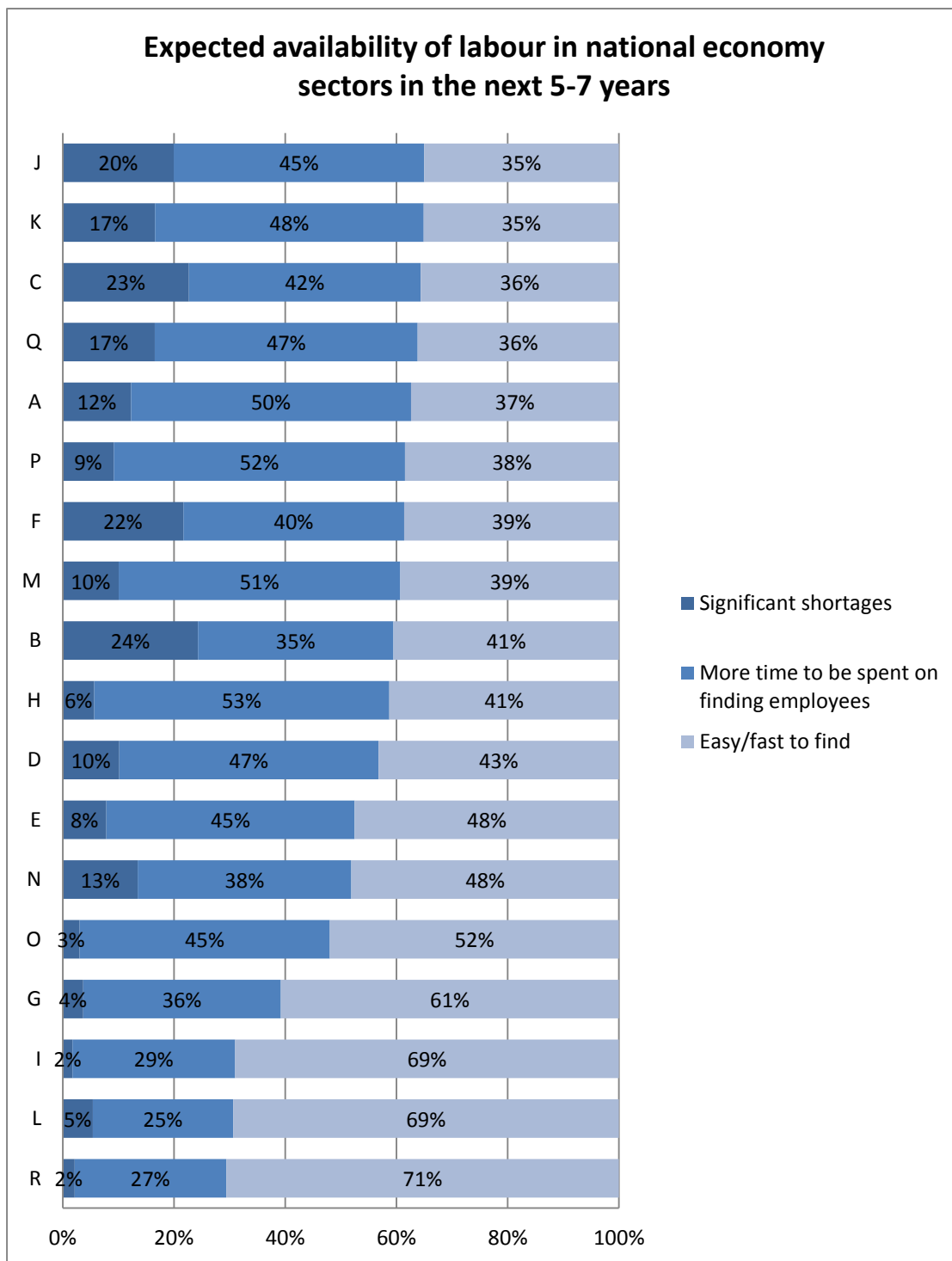
Results of phone interviews (see Table 2) show that there will be equally likely to either find specialists easily and fast (42 %) or to spend more time to find them (44 %). Yet, 14 % of respondent expect labour shortage, thus showing a general opinion that labour shortage is expected to be a future issue, though it will differ depending on each individual situation. Companies with 50 – 249 employees are likely to face the most labour shortage issues, while companies with more than 250 will be least affected by this issue.

Table 2

Expected availability of labour in different-sized companies in the next 5-7 years			
The number of employees in the company	Significant shortage	More time to be spent on finding employees	Easy/fast to find
>250	12 %	40 %	48 %
50-249	16 %	46 %	38 %
5-49	13 %	44 %	43 %
Total:	14 %	44 %	42 %

Analysis of the labour shortage issue by national economy sectors (see Chart 2) shows that the majority of sectors are expected to have labour shortage issues in the future.

Chart 2



Respondents of the industry phone interviews (see Chart 2) expect information and communication service sector to have the most labour shortage issues – 35 % of respondent believe that it will be easy and fast to find specialists, 45 % expect that they will need to spend more time on finding specialists, while 20 % expect significant lack of the needed specialists in the sector. Medium-level manager, project manager and programmers, as well as television and IP telephony engineers and database maintenance specialists are expected to be hard to find (see Annex No.2).

Phone interview results support the opinion of the respondents of the in-depth industry interviews.

If people will return to Latvia, there will be no labour shortage as they have to work somewhere. If they will see no job opportunities here, they will leave and there will be a labour shortage. Young generation will be gone, old generation will retired and no one will need any services. It depends on the general economic situation. (Publishing company manager)

If the birth rate keeps dropping and education becomes more primitive as it is today, then there is nothing to suggest that something might improve. (Computer programming, consulting, data processing, Internet portal and other related service company manager)

Employees will be available. Everything will remain as it is now – people go to school and then work. Will there be enough people? We expect labour shortage in medium-term and long-term. (Computer programming, consulting, data processing, Internet portal and other related service sector expert)

I believe that there will be a labour shortage. Schools will fail to supply sufficient number of qualified specialists because currently physics and mathematics are weak in schools; this applies to both teachers and employees. Basic IT programming should be taught already in 2-3 grade. (Telecommunication sector expert)

There are approximately 100 companies operating in this field. It is quite difficult to educate system administrations at the moment. IT specialists are learning the necessary skills on their own. For instance, we have no specialists in the field of IP telephony and no such specialist is expected to appear in the near future. (Telecommunication company manager)

The situation is similar also in financial and insurance service sector (see Chart 2) – 35 % of respondents say that it will be easy and fast to find specialists, 48 % believe that they need to spend more time on finding specialists and 17 % expect a significant shortage of specialists. Analysts, developers of product technologies, IT specialists and sales specialists, risk underwriters and auditors are forecasted to be the most difficult to find (see Annex No.2).

Respondents of the in-depth industry interviews expect labour shortage as well.

Based on the current trends in our education system and in the labour market regarding young people the number of labour force will keep dropping in the short-term and in the long-term. (Financial and insurance sector expert)

There is very limited number of IT specialists. If they decide to change something, their current employer imposes some conditions and they stay there. IT specialist cannot be easily found on the labour market. You can only lure them away from their current job. (Financial and insurance company manager)

It will be difficult to find employees. Many youngsters have realized that IT is a future occupation – many of them are studying here and going abroad to work. (Financial and insurance company manager)

None of higher education institutions in Latvia educates analysts. These specialists are learning and practically training on their own. It is quite difficult to find risk underwriters with insurance experience. (Financial and insurance company manager)

Phone interview respondents of manufacturing expect (see Chart 2) a shortage of the needed specialists in the future – 36 % say that it will be easy and fast to find specialists, 42 % believe that they will have to spend more time to spend on finding specialists. Manufacturing is one of the sectors which are expected to face a significant shortage of specialists – 23 % of phone interview respondent forecast the shortage. Machine operators and mechanics, as well as engineers, locksmiths, food technology specialists and production supervisors are expected to be the most difficult to find (see Annex No.2).

Respondents of the in-depth industry interviews have similar opinion.

I don't see any reason for improvement. Expatriated people have been living abroad too long to have any desire and motivation to return to Latvia. (Industry expert of manufacture of wood and products of wood)

Surely there is a lack of specialists on the market. My subjective opinion is that we are in absolute lack of mechatronic engineers – technicians who are able to repair machines. (Manager of manufacturing company of machinery, equipment and vehicles)

We are already facing a shortage of highly-skilled technical personal. We are unable to overcome the shortage because currently education system fails to supply these specialists. Our education does not train the needed specialists. (Light industry expert)

The situation is similar (see Chart 2) also in health and social care sector – 36 % of respondents believe that it will be easy to find employees, 47 % say that they will have to spend more time on finding specialists, while 17 % expect a significant shortage of specialists in the future in the sector. It is expected to face a lack of ergotherapists, social rehabilitation specialists and nurses (see Annex No.2).

Phone interview results support the answers of respondents of the in-depth industry interviews.

I would like to think that it will get better, although there is nothing to suggest that we will overcome the labour shortage. (Health care company manager)

The growing demand for services will result in difficulties to find suitable employees. (Social care sector expert)

If the government won't address the education issue of these people keeps, we will face a shortage of these specialists in the near future. There already is a lack of specialists in some places. We lack specialists in many areas – not just people calling themselves specialists but real professionals. (Social care sector expert)

Phone interview results show (see Chart 2) that agriculture, forestry and fisheries sector, education and construction sectors, as well as professional, scientific and technical service sector and mining and quarrying are expected to face the issue of

labour shortage. Construction sector and mining and quarrying sector are most likely to face labour shortage.

The majority of other sectors are also expected to have labour shortage. Arts, entertainment and recreation sector and real estate activities, accommodation and catering service sector and wholesale and retail trade; repair of motor vehicles and motorcycles and public administration and defence; mandatory social insurance sector are going to be the least affected by a labour shortage. The availability of labour is considered to be sufficient – 52 % - 71 % of respondents believe that will be easy and fast to find employees in these sectors.

3.4.2. Reasons for the lack of labour force and expected impact on the growth of sectors

Reasons for the lack of labour force

Table 3

Reasons for the lack of specialists						
NACE	Uncompetitive (low) wages	Education quality fails to meet the set requirements	Too few proper specialists are being educated	High increase in the demand for labour force	Ageing labour force	Other reasons
A	23 %	17 %	14 %	1 %	17 %	28 %
B	13 %	20 %	29 %	2 %	4 %	32 %
C	19 %	28 %	19 %	5 %	6 %	23 %
D	10 %	18 %	39 %	1 %	11 %	21 %
E	28 %	19 %	26 %	6 %	6 %	16 %
F	10 %	13 %	14 %	16 %	11 %	36 %
G	25 %	16 %	12 %	3 %	6 %	37 %
H	30 %	9 %	22 %	17 %	4 %	18 %
I	14 %	6 %	2 %	16 %	2 %	61 %
J	21 %	25 %	18 %	18 %	5 %	14 %
K	41 %	24 %	10 %	12 %	1 %	12 %
L	15 %	30 %	19 %	8 %	4 %	24 %
M	13 %	36 %	19 %	6 %	2 %	25 %
N	22 %	25 %	21 %	3 %	7 %	21 %
O	36 %	14 %	10 %	2 %	4 %	33 %
P	51 %	7 %	14 %	4 %	11 %	14 %
Q	43 %	8 %	7 %	9 %	14 %	19 %
R	54 %	11 %	17 %	11 %	3 %	4 %
Total	26 %	19 %	16 %	9 %	8 %	22 %

Uncompetitive wages (26 %) is the most frequent reason for the lack of labour force or limited availability of workers (see Table 3). It is followed by education system issues – 19 % of respondents say that education quality fails to meet the set standards, while 16 % consider that too few proper specialists are being educated these days. Other additional reasons include too low education level, the lack of proper education institutions and the fact that studies often are too expensive and difficult.

22 % of respondents give additional reasons for the lack of labour force. Most often they point out our issues caused by expatriation abroad or moving to other regions.

It depends on whether people keep leaving the country or stay here. Youngsters are going abroad to find work, leaving the labour market full of elderly people. Education system and the labour market are likely to face the risk of labour shortage because all qualified employees work aboard. (Gas supply, heat supply and air conditioning sector expert)

Expatriation is often followed by the fact that there is a lack of workers, people either have no desire to work or employees lack required skills and experience.

Working population is leaving the country. The virtue of work is not much appreciated and brought to light here. See, movies and magazines are all about some pseudo-celebrities, billionaires with doubtful money. But we have forgotten about the virtue of work. An entrepreneur that has actually worked hard to earn money is no role model. We no longer teach our children that the virtue of work brings success and prosperity. Today, you are either a millionaire or a loser. (Land transportation and land transportation service activities company manager)

A total of 18 % respondents indicated that a high increase in the demand for labour force also will be an important issue in information and communication sector. Similar situation – high increase in the demand for labour force is expected also in transport and storage sector (17 %), which is likely to face the issue of improperly educated specialists. As regards construction sector and accommodation and catering service sector, 16 % of respondents say that the high increase in the demand for labour force is likely to lead to limited availability of workers.

Education issues

As a reason for limited access to workers education system issues (see Table 3) are expected to be the most topical in electricity, gas supply, heat supply and air conditioning sector – 39 % say that schools in Latvia are educating too few proper specialists, while 18 % believe that education quality fails to meet the set requirements. This is essential issue also in professional, scientific and technical service sectors – 36 % believe that education quality fails to meet the set requirements, while 19 % think that too few proper specialists are being educated. The situation is similar in mining and quarrying – 29 % of respondents believe that too few proper specialists are being educated, and 20 % believe that education quality fails to meet the set requirements. Real estate activities – 30 % of respondents say that education quality fails to meet the set requirements and 19 % say that too few proper specialists are being educated. This issue will be topical also in manufacturing, administrative and support service activities (46 %), water supply; sewerage, waste management and remediation (45 %), and information and communication service (43 %) sectors.

The results of phone interviews support the opinion of the respondents provided during the in-depth interviews that education issues are one of the main challenges to finding suitable employees.

The labour shortage issue should be first addressed by improving the education system. The results might be achieved in 20 years. (Food and beverage industry expert)

We need vocational guidance to help people choose the best direction. Companies sometimes hire people with better grades despite the fact that they clearly are not suitable for the job. Meanwhile, other people understand the specific nature of the job but have lower grades and therefore companies do not find them to be attractive, thus losing potential employee. That is why we cooperate with higher education institutions, participate in commissions, provide lectures and try to do our best. (Computer programming, consulting, data processing, Internet portal and other related service sector expert)

Nothing will ever change if the state will not change the policy on vocational schools, technical schools and colleges. Companies will keep providing inadequate training to employees. Everyone will do the job as they can, thus causing injuries, damaging equipment and failure to achieve productivity results. (Manager of manufacturing company of wood and products of wood)

There are certain issues not only in the entire education system but also in communication and cooperation between schools that prepares specialists and employers who need those specialists.

Technical schools educate furniture carpenters. We hired a few students of these schools. The education quality is quite poor. About 5 people out of all students in the programme are worth further the investment and training. We had an awful student. He was asked to get an oak lath, but he brought a pine lath. He has been studying furniture carpenter crafts for 4 years but he cannot distinguish basic tree species. It is sad. However, the situation is now improving since the technical school approached us with a cooperation offer. (Industry expert of manufacture of wood and products of wood)

Sectors should more cooperate with deans of relevant faculties. There should be a certain link. (Radio and television programme production and broadcasting, news agency activities company manager)

The incomplete internship system that limits the opportunities for young specialists to gain experience in their profession after graduation is another major issue.

In Latvia, we have imperfect education in many areas. People often fail to undertake internship; they have minimum opportunities to work in manufacturing as there are very few manufacturing companies in Latvia. So, how many of technical school students actually undertake proper internship to receive practical training and improve their skills? We offer opportunities to undertake internship and we try to hire as many interns as possible. We are aware that it is a global issue. The crisis affects all companies and I see that people and companies prefer not to hire those interns because it is extra work, extra time and extra resources to be invested without being confident about any return on their investments. It is not the government policy, it the choice of each individual company –to hire interns or not, do I have time or not. (Manager of non-metallic mineral product manufacturing company)

Remuneration issue

As we look at the reasons for limited availability of workers by sectors (see Table 3), it becomes obvious that remuneration issue has the greatest influence on availability of workers in arts, entertainment and recreation sector (54 %) and education sector (51 %), where it is given as the main reason. This is a common reason also in health and social care sector (43 %), which is to a certain extent affected also by ageing labour force (14 %). Uncompetitive and low wages affect availability of workers also in financial and insurance sector (41 %), where the issue of incomplete education with the requirements is also a common issue (24 %), as well as public administration and defence; mandatory social insurance sector where 36 % of respondents consider uncompetitive wages to be the reason for the lack of workers.

It is a matter of money, how to find employees and to lure them away. There will be good employees, but will be more difficult to find them. We cannot find them on free labour market. (Financial and insurance company manager)

It is an unglamorous area – small wages, a wide range of people with serious issues. The social worker has to deal with all the problems in the world, both social issues and economic issues, as well as education issues and health problems. The problem is that social workers have access to very limited recourses, they are able to collaborate, but they cannot solve all of the problems. (Social care sector expert)

Some people are working in other fields of specialty – a specialist has acquired appropriate education, but the low wages have forced him/her to choose to work in an area completely other than his/her field of specialty. (Social care sector expert)

Such situation has occurred because of the inability of public administration to pay high level specialist equal wages as it is in private sector. (Public administration and defence; mandatory social insurance sector expert)

Remuneration issue is a major challenge to the availability of workers also in other national economy sectors.

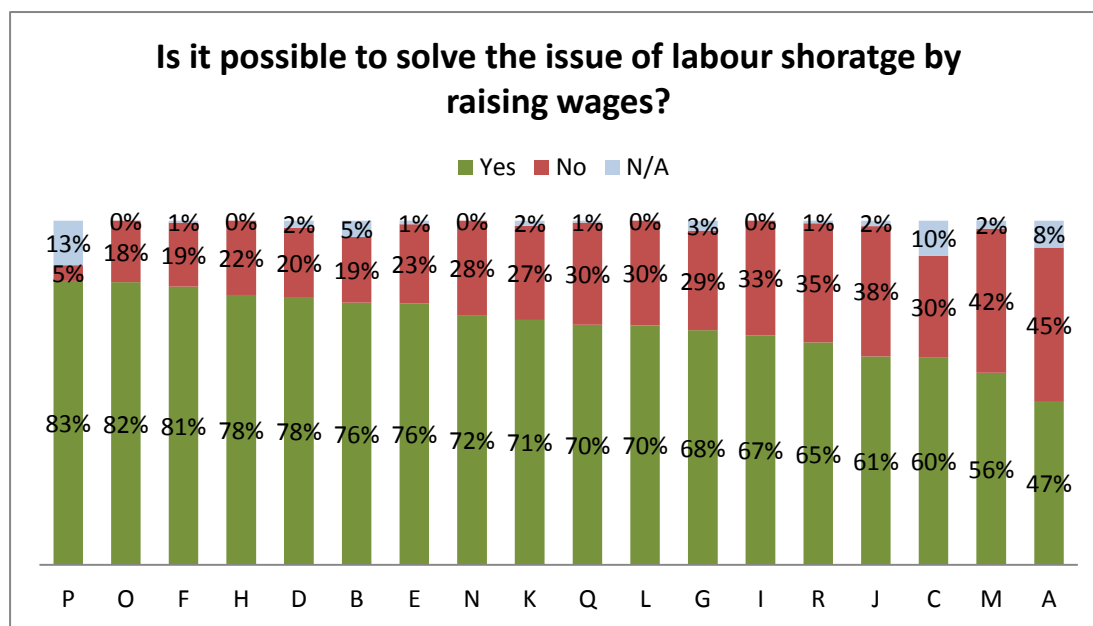
IT people are leaving the country. Are we able to pay them adequate wages? There are huge wage differences between Europe and Latvia. (Telecommunication company manager)

It won't be easy. These people are wanted all over the world. They have a lot of opportunities to work for decent wages and receive completely different social guarantees. (Food and beverage industry manager)

Computer specialists want to receive enormous wages. Perhaps, such wages are reasonable in this field. (Scientific research company manager)

Yet, analysis of phone interview respondents regarding the possibility to deal with the lack of labour force by raising wages show that the most of respondents have given a positive answer thus supporting the importance of the issue of the lack of labour force.

Chart 3



Respondents from education sector, public administration and defence; mandatory social insurance sector and construction sector most often indicated the increase in wages as a solution. This factor might have the least influence on the availability of workers in agriculture, forestry and fisheries sector. Respondents from education, manufacturing and agriculture, forestry and fisheries sector mostly gave no answer to this question.

Ageing trends

Ageing is the less common reason for the lack of labour force – only 8 % of all respondents expecting the lack of workers consider it to be a reason (see Table 3).

Table 4

Assessment of ageing as an issue in the company					
The number of employees in the company	Slightly unlikely	No	Slightly likely	Yes	N/A
>250	29 %	31 %	18 %	21 %	1 %
50-249	21 %	33 %	18 %	24 %	1 %
5-49	20 %	49 %	15 %	15 %	1 %
Total:	21 %	45 %	17 %	17 %	1 %

This corresponds to the respondent answers to the question about ageing issue in their company (see Table 4), most of the respondents find it to be no issue at all – 21 % think it is slightly unlikely, while 45 % are confident that it is not an issue at all. The most explicit trend is observed in companies with 5-49 employees. Yet, respondents from companies with 50-249 employees give positive answer more than others – 18 % find it is slightly likely to be an issue, while 24 % are confident that it is an issue in their represented companies.

Table 5

Assessment of ageing as an issue in -			
NACE	Yes	Slightly likely	Total:
D	41 %	14 %	55 %
Q	31 %	22 %	53 %
A	24 %	27 %	51 %
P	19 %	31 %	51 %
F	27 %	18 %	45 %
C	22 %	16 %	38 %
B	24 %	14 %	38 %
O	17 %	18 %	35 %
L	25 %	9 %	34 %
E	14 %	20 %	33 %
H	5 %	24 %	29 %
N	14 %	11 %	25 %
K	9 %	14 %	23 %
I	11 %	5 %	17 %
R	6 %	10 %	16 %
M	10 %	5 %	15 %
G	7 %	7 %	14 %
J	6 %	7 %	13 %

Yet, analysis of this issue by sectors (see Table 5) show that major ageing issues are expected in electricity, gas supply, heat supply and air conditioning sector (55 % of respondents), similar situation (53 %) is forecasted in health and social care sector, as well as in agriculture, forestry and fisheries sector (51 %), education (51 %) and construction (45 %) sectors. Ageing is considered to be less common issue in information and communication service sector, wholesale and retail trade; repair of motor vehicles and motorcycles, as well as professional, scientific and technical service sectors, arts, entertainment and recreation sector and accommodation and catering service sector (below 20 % in all of the sectors).

Respondents of the in-depth industry interviews indicate ageing and general demographic trends as a factor affecting the availability of labour force in the future.

*Considering demographic situation in Latvia, workers will be less available.
(Telecommunication company manager)*

There is no generational change – young people are gone. We have demographic pit in Latvia and young people have left the country – we will definitely have problems. (Industry expert of manufacture of non-metallic mineral products)

As regards the ageing issues, I think that craft-based occupations without any use of technologies might face problems – locksmiths have to work with their hands instead of mind. The problem is that young people prefer to work with computers. (Manager of manufacturing company of machinery, equipment and vehicles)

The impact of ageing on the availability of labour force, along with other factors, will cause problems, for example, lack of labour force will occur in professions which are not that popular amongst young people or in which insufficient number of specialists is being prepared. The negative impact of ageing is intensified by emigration trends.

Considering the ageing society and lacking worker, it will be hard in the long run unless the government finds a way to attract foreign workers. I think that there will be limited access to workers in the long-term. Although, companies probably won't need that much employees but there will be other sectors that will need these specialists. I think Latvia must find a solution, though it should focus on improving demographic situation and increasing the quality of education system instead of bringing workers to Latvia. (Financial and insurance activities expert)

If the state won't supply carpenters, I'd say, we will face ageing of carpenters. If the state won't supply welders, I'd say, we will face ageing of welders. It depends on the labour supply. It depends on which specialists we lack and which specialists are trained. (Expert of manufacture of wood and products of wood)

We'll see what happens to those occupations. If there will be sufficient supply, then there will be no ageing problems. But if there will be no supply, then technical occupations are the most likely to face constant ageing. At the same time, we have to constantly think about ensuring continuity s. (Manager of non-metallic product manufacturing company)

Impact of labour shortage on the development of the company

Table 6

Impact of labour shortage on the development of the company						
The number of employees in the company	No impact at all	Insignificant impact (within limits)	Periodic, insignificant impact	Certain impact on the company's activities	Significant impact on the activities	N/A
>250	38 %	17 %	20 %	12 %	13 %	0 %
50-249	23 %	26 %	23 %	10 %	14 %	3 %
5-49	21 %	24 %	29 %	13 %	12 %	1 %
Total:	22 %	24 %	28 %	13 %	12 %	2 %

As regards the impact of labour shortage on the company's activities (see Table 6), over a half of respondents admits that it will have certain impact on the company's activities – 12 % expect labour shortage to have significant impact on the company's activities. Companies with 5-49 employees will mainly be affected by this issue, while companies with more than 250 employees will be the least affected. 17 % of respondent from this group expect insignificant impact, while 38 % expect no impact at all.

Table 7

Sectors that will be most affected by the impact of labour shortage on the company's activities				
NACE	Significant impact on the activities	Certain impact on the company's activities	Periodic, insignificant impact	Total
A	10 %	10 %	49 %	68 %
E	6 %	22 %	38 %	66 %
F	14 %	18 %	32 %	64 %
K	8 %	29 %	27 %	64 %
G	20 %	8 %	36 %	63 %
H	3 %	17 %	42 %	63 %
C	18 %	17 %	22 %	57 %
Q	19 %	11 %	26 %	57 %
J	14 %	13 %	28 %	56 %
N	22 %	10 %	22 %	54 %
L	16 %	9 %	23 %	48 %
M	8 %	11 %	26 %	45 %
D	10 %	8 %	22 %	41 %
I	2 %	14 %	19 %	34 %
O	10 %	11 %	12 %	33 %
P	9 %	2 %	21 %	32 %
R	4 %	6 %	18 %	28 %
B	10 %	10 %	5 %	24 %

However, analysis of this issue by sectors (see Table 7) suggests that agriculture, forestry and fisheries sector (68 %), water supply; sewerage, waste management and remediation sector (66 %) and construction and financial and insurance activities (64 %) will be the most affected by the impact of labour shortage on the company's activities. Other sectors are expected to face these issues as well, while administrative and support service activities are likely to face the most serious issues – 22 % of respondents say that the company's activities will be significantly influenced in case of labour shortage. The situation is similar in wholesale and retail trade; repair of motor vehicles and motorcycles (20 %), and health and social care sector (19 %).

Respondents of the in-depth industry interviews also expect labour shortage to be a factor affecting the activities in the sector.

The lack of IT specialists will become a factor affecting the entire economy in Latvia. It is an increasing problem – it is not just one IT company, it affects all of us. (Computer programming, consulting, data processing, Internet portal and other related service company manager)

The lack of labour is expected to become a hindering factor. (Crop and animal production expert)

Considering the expected lack of labour, it will definitely have a certain influence on the sector. (Health care sector expert)

I think it will be a factor affecting the sector. At the moment, everything is fine in our company. (Food and beverage industry company manager)

The lack of labour is said to have an indirect impact on the company's activities, for example, labour shortage will increase the company expenses.

It will affect our costs. It may also influence the interest of investors and shareholders to operate in this market. (Food and beverage industry expert)

It may hinder the development of the company and affect the quality of provided service or manufactured product.

As the manufacturing grows, the lack of great specialists may be the stumbling block. In such case, it will affect the activities in the sector. When manufacturing is developing rapidly across the country, we have to draw the interest of young generation to the sector. Therefore, we cooperate with vocational schools. When you know what you need, you also know what to train. (Manager of manufacturing company of non-metallic mineral products)

We may find ourselves in a situation where we have reached the top and that's it. We may lack demand. We may have demand for a good but we won't be able to produce it just because we lack workers. (Light industry expert)

It will affect service quality. The system is not expected to stop functioning as a whole in the future, but the sector cannot assure proper service quality with insufficient number of workers. (Social care sector expert)

We are expecting lack of workers and it definitely will hinder the activities in the sector. (Railway transport industry company manager)

Table 8

Sectors that will be less affected by the influence of labour shortage on company's activities			
NACE	Insignificant impact (within limits)	No impact at all	Total
R	35 %	36 %	72 %
O	20 %	47 %	67 %
P	37 %	27 %	64 %
I	30 %	32 %	63 %
B	33 %	29 %	62 %
D	24 %	35 %	59 %
M	34 %	21 %	55 %
L	25 %	27 %	52 %
N	29 %	17 %	46 %
J	25 %	18 %	44 %
Q	29 %	14 %	43 %
C	14 %	24 %	38 %
H	30 %	24 %	54 %
K	17 %	20 %	36 %
G	23 %	13 %	36 %
F	15 %	20 %	35 %

E	17 %	18 %	34 %
A	17 %	14 %	31 %

Arts, entertainment and recreation sectors is expected to be the least affected by the issue of labour shortage (see Table 8) – 72 % of respondents say that impact will be insignificant or there will be no impact at all. The situation is similar in public administration and defence; mandatory social insurance sector (67 %), where respondents mainly expect no impact at all – 47 %. In education sector, 64 % of respondents expect insignificant impact on activities or no impact at all. Similar forecasts have been provided also in accommodation and catering service sector (63 %) and mining and quarrying sector (62 %).

The in-depth industry interviews show similar opinions. Companies are expected to find solutions to address the issues of labour shortage in order to avoid any problems and impact on activities and development of the company.

It won't be a factor affecting the sector. We will definitely find a solution and train employees by ourselves. (Food and beverage industry company manager)

We will always lack specialists but not new employees. Is it an affecting factor? I don't think so. I believe that the lack of specialists itself means that perhaps, there would be more employees along with the growth of the sector. (Legal and accounting service company manager)

Summary

- Overall, the expected future issues of labour shortage will differ from company to company. The majority of sectors are expected to face issues of labour shortage.
- The following sectors are less likely to face labour shortage s:
 - Arts, entertainment and recreation sector;
 - Real estate activities;
 - Accommodation and catering service sector;
 - Wholesale and retail trade; repair of motor vehicles and motorcycles;
 - Public administration and defence; mandatory social insurance sector.
- Among the most frequent reasons for labour shortage or limited access to labour force are:
 - Uncompetitive wages;
 - Education quality fails to meet the set standards;
 - Insufficient number of properly educated specialists.
- More than a half of respondents admit that the lack of employees will affect company's activities.
- Labour shortage will have indirect impact on the company's activities due to increasing costs of the company. It might hinder the development of the company and affect the quality of provided service or manufactured product.

3.4.3. Possible solutions to the identified labour market issues in the future

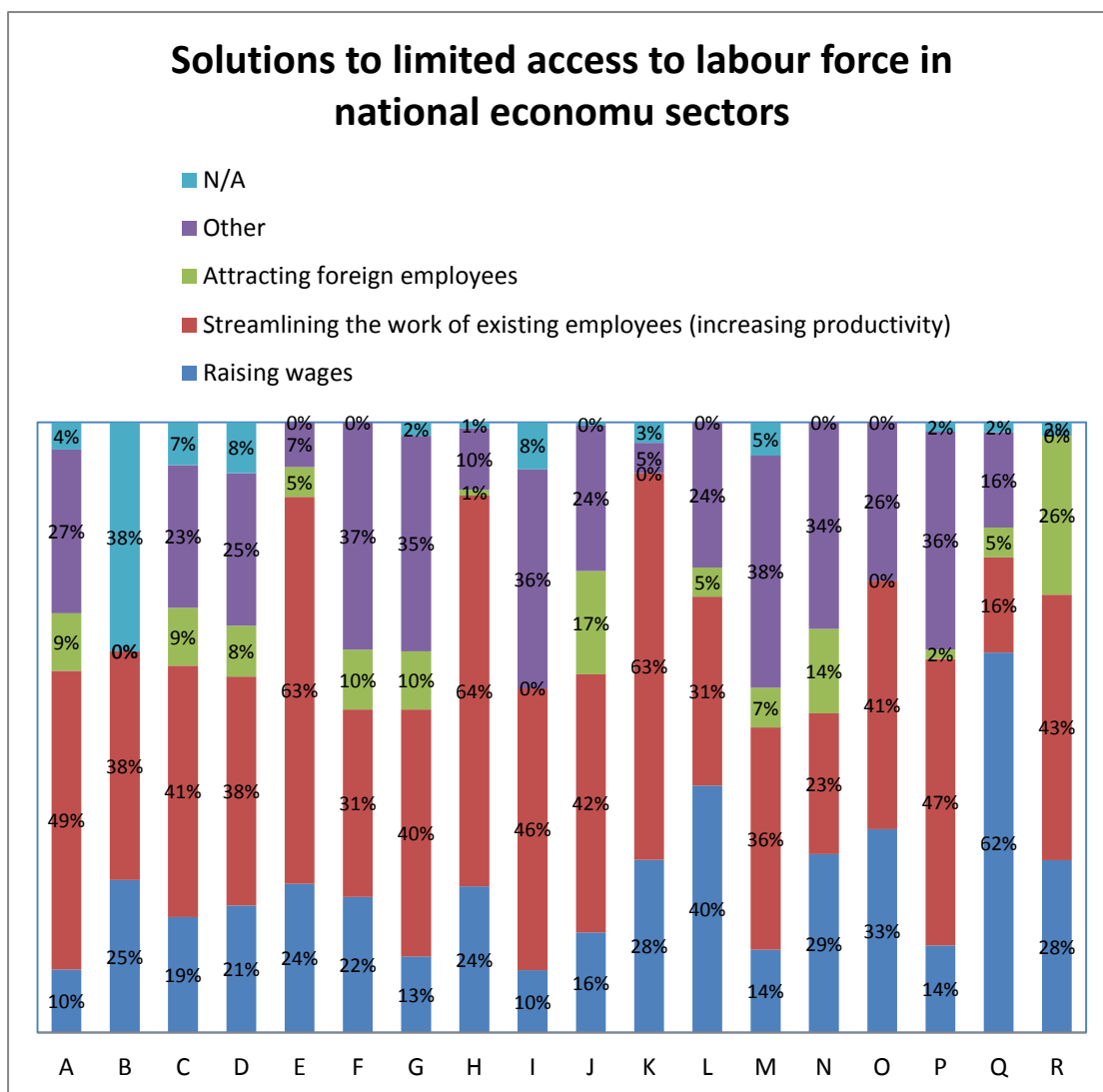
Activities expected from entrepreneurs

Table 9

Possible solutions in case of limited access to labour force					
The number of employees in company	Optimising the work of existing employees (increasing productivity)	Raising wages	Attracting foreign employees	Other	N/A
>250	33 %	29 %	11 %	24 %	2 %
50-249	37 %	21 %	8 %	31 %	3 %
5-49	45 %	20 %	8 %	23 %	4 %
Total:	43 %	21 %	8 %	25 %	3 %

Most of respondents believe that the possibility to streamline the work of existing employees (see Table 9) is the best way to solve the issue of labour shortage – it is the opinion of 43 % of respondents who expect problems with access to labour force. Companies with 5-49 employees are mainly ready to streamline the work of existing employees – 45 %.

Chart 4



Analysis of possible problem solutions by sectors (see Chart 4) shows that companies mainly from transport and storage sector (64 %), finance and insurance activities (63 %) and water supply; sewerage, waste management and remediation (63 %) sectors plan to streamline the work of existing employees and increase productivity. Streamlining the work of existing employees and increasing productivity is also planned in agriculture, forestry and fisheries sector (49 %), education (47 %) and accommodation and catering services (46 %) sectors.

I hope to introduce advanced technologies in the next seven years, and we no longer will need so many people. The more technologies we introduce in the company, the less employee we need. (Food and beverage industry company manager)

Despite the fact that attracting foreign employees, in general, is the least popular solution (8 %), some sectors have mentioned this solution more than others. Most often this solution is mentioned by arts, entertainment and recreation sector (26 %), as well as information and communication services (17 %) and administrative and support service activities (14 %) sectors.

When it comes down to additional answers to the question about how entrepreneurs are going to address the issue of labour shortage, entrepreneurs most often chooses training at the company or possibility to send employees to courses. Entrepreneurs are ready to cooperate with different education institutions to tackle these issues.

Yet, majority of additional answers show that entrepreneurs are going to actively search employees themselves, involve and buy them from other companies, as well as attract student by offering internship at the company.

Increase in wages might be the answer to the issue of labour shortage in health and social care sector (62 %), as well as real estate activities sector (40 %).

Table 10

Possibilities to raise wages in companies					
The number of employees in company	Yes	Slightly likely	Slightly unlikely	No	N/A
>250	18 %	43 %	26 %	10 %	3 %
50-249	17 %	30 %	26 %	20 %	6 %
5-49	16 %	37 %	24 %	19 %	4 %
Total	16 %	36 %	25 %	19 %	5 %

More than a half of respondents see a possibility to raise wages for the purpose to attract employees to their company (see Table 10) – 16 % give strongly positive answer and 36 % believe it is slightly likely. Companies with more than 250 employees have more opportunities to raise wages, while companies with 50-249 employees see the least opportunities to raise wages. The situation is similar also in companies with 5-49 employees.

The sector is profitable enough. Wood processing will be able to raise the wage level and attract employees. (Manager of manufacturing company of wood and timber products)

At the same time, 21 % of respondents are ready to raise wages (see Table 10). Companies of these respondents expect certain difficulties to attract appropriate employees, while 29 % of companies with more than 250 employees are ready to raise wages.

Table 11

Possibilities to raise wages in national economy sectors			
NACE	Yes/Slightly likely	No/Slightly unlikely	N/A
B	76 %	19 %	5 %
F	64 %	36 %	1 %
R	62 %	37 %	2 %
I	59 %	36 %	4 %
M	59 %	37 %	4 %
L	58 %	42 %	0 %
N	57 %	43 %	0 %

E	57 %	41 %	2 %
C	57 %	34 %	9 %
A	55 %	32 %	13 %
H	54 %	46 %	0 %
J	54 %	46 %	0 %
D	53 %	47 %	0 %
O	51 %	46 %	3 %
G	50 %	43 %	6 %
Q	46 %	54 %	0 %
K	41 %	53 %	6 %
P	20 %	76 %	4 %
Total	52 %	43 %	5 %

Analysis of the possibilities to raise wages in different sectors (see Table 11) show that majority of sectors will have such possibilities. Mining and quarrying (76 %), construction (64 %) and arts, entertainment and recreation sector (62 %) are more likely to be able to raise wages. Accommodation and catering service sectors and professional, scientific and technical service sectors have equal possibilities to raise wages (59 %). Compared with other sectors, education sector is a different story. 76 % of respondents expect no possibilities or slightly unlikely to raise wages. It is less likely to raise wages in financial and insurance activities (53 %) and health and social care (54 %). Yet, respondents from agriculture, forestry and fisheries sector, more than other sectors, provided no answer to the question about possibilities to raise wages in companies (13 %).

There are some contradictions with regard to the rise in wages in certain sectors. A total of 62 % of respondents from health and social care sector mentions increase in wages as a solutions to the issue of labour shortage. However, when it comes down to possibilities to increase wages, 54 % of respondents admit that it is impossible. The situation is similar also in financial and insurance activities where 28 % of respondents consider the increase in wages to be a solution to the issue of labour shortage. At the same time, 53 % of the surveyed industry companies say that it is impossible to raise wages. Public administration and defence and mandatory social insurance sector is facing similar problems – 33 % of respondents consider the increase in wages to be a solution, while 46 % this it is very unlikely to raise the wages. Other sectors have the same problems, though less explicit as in the aforesaid sectors.

Yet, respondents of the in-depth industry interviews believe that complex activities will solve the issue of labour shortage. They say that raising wages should not be the objective because wages will increase along with the increase in productivity; therefore, increase in productivity should be the objective to prevent unreasonable rise in wages.

I wouldn't focus on raising wages to the European level. I would rather work on increasing productivity and relevant rise in wages. (Paper production and publishing expert)

We need productivity to raise wages. The pre-crisis period when wages grew much faster than productivity was a disaster. We were forced to raise wages for employees not because they were working good or hard but just because

the wage in those days was not sufficient to pay for gas, electricity and heating. It was wrong. Well, Latvia has a chance to try again and it has nothing to do with the growing prices for oil, gas and so on. (Mining industry expert)

We lack employees but we have to train them. There are very few mechatronics engineers; this occupation entered the classification of occupations quite recently. And there are only two schools in Latvia that train these specialists. But this occupation is currently in demand. The demand for labour will increase due to the need for productivity. Productivity increases and you cannot pay them a living wage. You have to pay adequate wage. But adequate wages require high productivity. In order to achieve productivity, you have to train them in hydraulics, pneumatics and electronics. In other words, you have to let them feel connected to pneumatics and hydraulics. And that is how you achieve productivity and earn money to pay wages. We are on the way. Don't spit into the wind. (Mining industry company manager)

Industry representatives point out that is essential to participate in the labour market processes to promote the sector and demanded professions, as well as to cooperate with schools that prepare such specialists.

We hope to have more opportunities to choose the best employees and we are working on that by promoting the sector itself and showing that proper education in these sectors will make it easier to find a job and well-paid job. (Crop and animal production expert)

The industry itself has to improve its work. It has to visit schools and attract young people. A child won't get interested in the industry just like that. You have to increase prestige of the sector, tell people about food and attract them. (Food and beverage industry expert)

It is going to be fine on a condition that we will implement all of the measures launched over the past few years – work with schools, internship opportunities for students. (Manufacture industry expert of machinery, equipment and vehicles)

Expected activities of the State

Table 12

Solutions to the issue of insufficient labour force expected from the State						
NACE	Matching education opportunities with the labour market demands	Introducing support programmes to promote retraining or raising of qualification of existing employees	Changes in the benefits system	Liberalisation of the migration policy (attracting foreign labour force)	Other	N/A
A	23 %	14 %	16 %	3 %	41 %	2 %
B	22 %	11 %	7 %	7 %	37 %	15 %
C	24 %	8 %	6 %	3 %	51 %	7 %

D	22 %	14 %	5 %	3 %	51 %	5 %
E	24 %	18 %	7 %	1 %	48 %	2 %
F	9 %	7 %	4 %	1 %	77 %	0 %
G	22 %	11 %	10 %	4 %	46 %	7 %
H	10 %	12 %	9 %	1 %	67 %	1 %
I	8 %	8 %	12 %	1 %	55 %	17 %
J	40 %	20 %	6 %	6 %	29 %	1 %
K	24 %	14 %	2 %	2 %	54 %	4 %
L	11 %	11 %	2 %	1 %	75 %	0 %
M	33 %	19 %	6 %	2 %	36 %	4 %
N	4 %	3 %	1 %	5 %	86 %	0 %
O	38 %	11 %	1 %	1 %	49 %	0 %
P	10 %	22 %	6 %	1 %	60 %	1 %
Q	21 %	15 %	9 %	0 %	53 %	1 %
R	20 %	8 %	21 %	9 %	28 %	15 %
Total:	22 %	13 %	8 %	3 %	50 %	4 %

Most often the state is expected to match education opportunities with the labour market demands to solve the issue of insufficient labour force (see Table 12). 22 % of all respondents expect the state to ensure the match. This issue is topical mainly in information and communication services sectors (40 %), similar situation is also in public administration, defence sector; mandatory social insurance sector (38 %). This issue will also be topical in professional, scientific and technical services sector (33 %), manufacturing (24 %) and water supply; sewerage, waste management and remediation (24 %) sectors.

Implementation of support programmes to promote retraining or raising of qualification of existing employees is another important issue to be addressed by the State to help solve the issue of labour shortage. It is expected by 13 % of respondents and this solution is mostly mentioned in education sector (22 %), as well as information and communication services sector (20 %). This issue is also essential in professional, scientific and technical services sector (19 %) and water supply; sewerage, waste management and remediation (18 %).

Yet, along with the issues of improvement and implementation of different training, the state is urged to make changes in the benefits system (8 %). This issue is important in arts, entertainment and recreation sector (21 %), as well as agriculture, forestry and fisheries (16 %) and accommodation and catering services (12 %) sectors.

Just 3 % of the total respondents expect the state to change liberalisation of the migration policy. Arts, entertainment and recreation sector (9 %), mining and quarrying (7 %) and information and communication services (6 %) sectors mainly expect the state to implement this solution.

Professional, scientific and technical services sector (86 %) and construction (77 %) and real estate activities sectors (75 %) most often expect the state to implement other solutions.

Changes in the tax policy are the most popular additional option to be implemented by the state to ensure sufficient labour force. The State is expected to reduce taxes

and apply different tax allowances to entrepreneurs. Such changes are expected in the majority of sectors. There is also highlighted the need to raise wages. Both sectors counting on the state financing, like education, social and health care sectors and private sector like accommodation and catering services, manufacture of metal and metal products, land transport and water supply, sewerage, waste management and remediation sectors expect the state to raise wages.

The state is also expected to support development and improvement of manufacture and sectors, as well as to support regions and development of infrastructure. These solutions are mainly proposed by crop and animal production sector, manufacture of computer, electronic, optical and electric products, construction of buildings and civil engineering projects, as well as manufacture of furniture, manufacture of paper and publishing, forestry and logging, transport services and other sectors. The sectors also point out the need for changes in education system to improve its quality, offer more courses and quality training.

Respondents of the in-depth industry interviews also propose similar ideas.

As soon as the tax policy will be improved and people will have opportunity to earn adequate money, there will be also sufficient labour force. The same applies to education level – when our higher education institutions will be able to prepare highly qualified and competent specialists, we won't have to train them at the company. It's not our responsibility. (Water supply, sewerage, waste management and remediation sector expert)

Europe will keep tightening the belt and in the end, the benefits schemes will disappear. We hold a good starting position in the future. We have quite good chances on a condition that our politicians will use it skilfully and improve our national economy to make it efficient and choose which sectors to support and which not, implement proper tax policy and efficient public administration. (Food and beverage industry company manager)

It depends on the government. The government should allocate more money. Schools should focus on encouraging youngsters to choose to study joinery instead of the law. But that is education policy. (Expert of manufacture of wood and products of wood)

The law should impose a mandatory obligation on factories to employ students. (Manager of manufacturing company of machinery, equipment and vehicles)

Summary

- Most of respondents believe that the possibility to streamline the work of current employees is the best way to solve the issue of lack of labour force.
- The work of current employees is planned to be streamlined and productivity is to be increased mainly in:
 - Transport and storage industry;
 - Finance and insurance industry;
 - Water supply; sewerage, waste management and remediation industry;
 - Agriculture, forestry and fisheries industry;
 - Education;
 - Accommodation and catering service industry.

- Employees are expected to be trained at companies or sent to courses.
- Entrepreneurs are ready to cooperate with different education institutions to solve these issues since it is crucial for them to participate in the labour market processes to promote the industry and the required professions, as well as to cooperate with schools that prepare those specialists.
- Entrepreneurs will actively look for employees themselves, involve or buy from other companies, as well as attract student by offering internship in their companies.
- Most of industries are expected to have an opportunity to raise wages. Exceptions are:
 - Education ;
 - Finance and insurance activities;
 - Health and social care.
- Raising wages should not be the objective because wages will increase along with the increase in productivity; therefore, increase in productivity should be the objective to prevent unreasonable rise in wages.
- In order to solve the lack of labour force, the state is mainly expected to:
 - Ensure matching education opportunities and the demands of labour market;
 - Implement support programmes to promote retraining or raising of qualification;
 - Reduce taxes and introduce various tax allowances for entrepreneurs – such changes are expected in the majority of industries;
 - Support development and improvement of manufacturing and industries, regions and development of infrastructure.

4. Summary of the findings and thesis of the workshop

4.1. Process of the workshop and the discussed issues

The goal of the workshop was to discuss the results of the project activity – “Surveys in the sector of labour market”.

Discussion was attended by representatives of the Ministry of Economy of the Republic of Latvia, representatives of Dorus Ltd., and 29 other participants, including experts of economics of Latvia, representatives of economics associations, federations and confederations, representatives of the biggest Latvian companies, experts of economy (including economy experts from the biggest banks of Latvia), representatives of Ministry of Welfare of the Republic of Latvia, representatives of University of Latvia and Business School, as well as representatives of Ministry of Education and Science of the Republic of Latvia.

During the workshop 3 main issues were discussed – “trap” of low income, decrease and ageing of the population/workforce, as well as changes in the labour market demand and disproportion.

4.2. “Trap” of low income

The workshop participants agreed that there exists a “trap” of low income.

The “trap” of low income is potentially most dangerous to people over 50 years old, because they cannot get highly qualified jobs and their competitiveness falls.

The “trap” of low income is also created by the attitude of companies – the company managers are currently more interested in personal gain rather than in raising their employees’ wages.

The competitiveness of the existing companies has been achieved by using the low workforce costs, but company managers realize that they need to look for ways to improve competitiveness by other methods.

Employers are prepared to raise wages, but only for highly qualified specialists.

For companies to be able to evolve and pay more to their employees, they need manufacturing; to be brave enough to create new, competitive products, as well as the ability to sell, to create an image.

When companies achieve a certain level of success they become afraid to take further risks. Companies need to work with their goals. How to create a product and pay bigger wages? How do we encourage entrepreneurs to manufacture, sell, and create a brand name? We have a conservative mentality, but how can we change this? (Economist from SEB bank)

The solutions to the problem lay in transition to sectors of medium and high technologies by approaching the EU level.

4.3. Decrease and ageing of the population/workforce

The problems related to ageing arise, because specialists retire and there are no new employees who would be able to take over their work.

The issue is not only the ageing of the workforce, but also the ageing of managers of small and medium-sized companies. Those entrepreneurs do not wish to take risks and evolve further.

The problems of demography and workforce deficit in Latvia will be most acute in 20 years, but we have to start looking for solutions now. Forecasts indicate that with regard to negative demographic tendencies, in the near future the availability of workforce in Latvia will become more pressing issue because of the economic development.

Most of the people who emigrated were trying to avoid credit payments. Highly qualified specialists who leave Latvia for higher wages that we cannot offer here is the smallest part of emigrants.

Of course, there are highly qualified specialists who leave, but most of the emigrants are trying to avoid credit payments. In the foreign countries they work in low-qualified jobs and don't earn much, because living costs are higher in foreign countries. A lot of people realize this and return. (Representative of Association of Timber Harvesting Companies)

Rather than develop remigration plans, we should do more for the people who work in Latvia by, for example, building pre-schools. (Representative of paper manufacturing and printing sector)

4.4. Changes in the labour market demand and disproportion

There is a discrepancy in the labour market between the supply of the formal education and the demand of the labour market; therefore there is a surplus of specialists in arts and social sciences and a deficit in engineering.

In order to solve the disproportion between education and workforce demand, we need to precisely identify how many people are required with higher education and how many with vocational education. It is also important to ascertain how many people we need for each profession.

How many people do we need for each profession? If the answer is five – how do we train them? We need cooperation between all Baltic countries. (Representative of UL Economy faculty)

The world is changing faster. There are changes in sales and technologies. Education has to become more flexible, because the demands for a specific speciality change every 2-3 years.

We need to encourage logical thinking and studying of hard sciences at an early age.

We have to teach about professional education already in kindergarten. This can be done by talking about various sectors and professions; by telling children about all the possibilities and encouraging their interests. Children need to realise what they want to do in their life as early as possible.

In the pilot projects of dual education in Latvia we need qualified professionals, so that the experience is positive and schools, companies and state would cooperate. There cannot be a situation of only companies working with this. The initiative needs to come from the Ministry of Education and Science.

It is possible to compensate the lack of highly qualified specialists by controlled immigration, but we have to realise the risks involved. The employers at this point are not emotionally or practically prepared to involve foreigners in their companies.

5. Main conclusions and suggestions

Tendencies of the economic development

- Over the coming years the development of economics in Latvia will be based on sectors that have been previously successful, for example, agriculture, forestry, manufacturing etc. Those sectors will continue to evolve by increasing productivity through the technological development.
- The future development will depend on the ability of companies to introduce new technologies that make processes more effective, increase the productivity and competitiveness. The new technologies will be introduced in practically all sectors of economics, but especially in manufacturing.
- In many sectors the development of new products and services and introduction of niche products will among the economic development tendencies. The scientific research will play an important role in those processes.
- There is a growth tendency of the export of Latvia, which increases the dependency of state economy on external factors.
- If foreign investments are introduced the competitiveness of the local companies may be in danger. In the future we will see new ways of cooperation and mergers of the smaller companies.

The anticipated changes in the labour market

- The importance of vocational specialists will grow in the future development of the economics of Latvia.
- There is a re-orienting in the EU towards highly qualified workforce, which will determine the tendencies of the labour market demand. This is a threat to the Latvian labour market – if the difference between the level of wages in Latvia and the EU remains, the qualified workforce will continue to leave Latvia.
- At the same time there are forecasts stating that due to increased competition for the workforce between companies caused by an increase in productivity, the wages will be raised for qualified specialists to a level where emigration slows down.
- Changes in the workforce demand will be related to qualitative rather than quantitative tendencies – the most important requirement for employers will be high qualification and specific skills. Most company managers during the phone interviews stated that the number of work places will remain the same or grow slightly. The experts in the in-depth interviews agree: there won't be a significant rise in the number of work places.
- The rise in productivity will create a demand of qualified specialists and a fall in the demand of low-qualified specialists. In the phone interviews company managers from various sectors stated that the most popular professions are both highly qualified specialists: engineers, structural engineers, programmers etc., as well as vocational specialists: operators of woodwork technologies,

operators of machines, mechanics etc., and also service specialists: sales specialists, project managers, client consultants, financiers, accountants, lawyers etc.

- The demand will continue to increase of IT professionals and technical engineers with both vocational and higher education. The most demanded skills in the future will be related to new technologies, including knowledge and use of IT; such skills will be necessary in most economics fields.
- Most sectors will need employees who are able to change and adapt to the requirements of their speciality. Employees will need to extend their skills, to be multifunctional: able to do more than just one thing, be knowledgeable in several fields, to possess skills and knowledge of several employees.
- There will be a greater need for communication skills. The most demanded ones will be teamwork, client-oriented service and ability to sell in both local and global markets. Language skills will also be important. Latvian, Russian and English will remain to be the most demanded ones.

Anticipated labour market problems

- Company managers in the phone interviews stated that in most sectors there will be problems in the Latvian labour market with workforce availability. In the next 5-7 years those problems will be most acute in the information and communication sector, financial and insurance sectors and manufacturing. It will be hard to find highly qualified employees who will comply with the requirements. Professions in which it will be most problematic to find specialists will be middle and project managers, programmers, analytics, developers of product technologies, IT specialists, operators of machines, mechanics etc.
- Demographic issues combined with workforce emigration will create a deficit of human resources. In the regions the deficit will be the worst. Although economics experts and representatives in their in-depth interviews often mentioned the consequences of the demographic situation, in the phone interviews the ageing was rarely stated as a factor of workforce deficit. However, there are sectors where this is an issue; most often it is mentioned as a problem by managers of electricity, gas supply, heat supply and air conditioning companies.
- The improvement of productivity and automation through new technologies will create structural unemployment that will be facilitated by the narrow labour market in the regions. The structural unemployment will remain and will become a regular phenomenon and will require additional financial resources.
- Company managers from various sectors in the phone interviews said that the main reason for workforce deficit will be the low wages. The most acute this problem is in the sectors of art, entertainment and recreation, education, state administration and defence, compulsory social insurance, health and social care.

- In most economics sectors there are education-based problems. Respondents in the phone interviews said that the education quality does not comply with the requirements, there are too few specialists with sufficient education.
- More than half of the company managers in the phone interviews agree that the deficit of workforce will create problems for operation of companies. If there is a workforce deficit, the costs of companies will rise therefore there will be fewer development possibilities and it will be harder to keep the quality of the product or service.

Possible solutions to the anticipated issues

- Company managers in the phone interviews stated optimisation of the work of the current employees as the most likely solution to the workforce deficit.
- The next most popular solution for workforce deficit is rise of wages. It will be possible, if there is an increase in productivity and efficiency.
- The state should introduce changes in the education system in order to ensure education that complies with the labour market demands. Closer cooperation between educational institutions and companies is necessary for the development and assessment of education programmes; providing students with work placements and involving the students in work during the studies. The professional orientation is also important. Children need to learn about various professions and sectors early on and the society need more information on the events and processes in various sectors of economics.
- Phone interview respondents stated that support programmes are necessary encouraging re-qualification or rising qualification of the workforce, in order to be ready for the changing demands of the labour market and combat the structural unemployment. The employees need to be encouraged to evolve and study in the companies or in professional courses.
- The state also needs to introduce changes in the tax policy; provide reliefs to entrepreneurs and support for the development of manufacturing, regions and infrastructure.
- In order to make workforce more available the state needs to involve workforce reserves and encourage remigration. Should those measures fail, we need to start deliberate immigration.
- Experts and companies disagree on the immigration issue: most economics experts and respondents of in-depth interviews agree that it will be necessary to import workforce, but the phone interview respondents state that it is not a popular solution among the entrepreneurs. Only a small part of the phone interview respondents would like the state to use this solution. Involvement of foreign workforce is also not a popular solution to the issue of workforce deficit. Most often it was mentioned as a possible solution in the sectors of arts, entertainment and recreation, as well as information and communication services.

Annex 1

Assessment of the changes in number of work places in the next 5-7 years					
Professions	Significant rise	Significant fall	Small rise	Small fall	Remain the same
A - Agriculture, forestry and fishery					
IT specialists	0 %	2 %	9 %	4 %	85 %
Managers	0 %	0 %	11 %	0 %	89 %
Agronomist	0 %	0 %	14 %	1 %	85 %
Car drivers	0 %	5 %	9 %	33 %	53 %
Accountant	0 %	0 %	6 %	2 %	92 %
Wood cutters	0 %	9 %	8 %	59 %	23 %
Drivers of timber hauling trucks	0 %	5 %	7 %	31 %	57 %
Low-qualified workers	2 %	4 %	9 %	17 %	67 %
Machine operators	0 %	0 %	16 %	4 %	80 %
Operators of timber technologies	0 %	6 %	21 %	25 %	48 %
B – Mining and quarrying					
Industrial machine operators	7 %	0 %	21 %	7 %	64 %
Excavator drivers	5 %	0 %	37 %	11 %	47 %
Locksmiths	7 %	0 %	20 %	13 %	60 %
Car drivers	7 %	0 %	27 %	13 %	53 %
Bulldozer drivers	0 %	0 %	0 %	0 %	100 %
Machine operators	0 %	0 %	0 %	0 %	100 %
Welders	6 %	0 %	13 %	13 %	69 %
Auxiliary worker	11 %	6 %	17 %	11 %	56 %
Dump truck drivers	0 %	0 %	0 %	0 %	100 %
Tractor drivers	6 %	6 %	44 %	6 %	38 %
Middle managers	6 %	12 %	24 %	0 %	59 %
C - Manufacturing					
Carpenters	5 %	5 %	31%	10 %	49 %
Machine operators	9 %	1 %	36%	12 %	43 %
Engineers	4 %	3 %	30 %	5 %	58 %
IT specialists	8 %	0 %	36 %	3 %	52 %
Constructors	0 %	4 %	33 %	14 %	48 %
Mechanics	4 %	4 %	38 %	2 %	52 %
Manufacturing managers	0 %	3 %	22 %	12 %	63 %
Locksmiths	1 %	3 %	31 %	9 %	56 %
Welders	1 %	3 %	36 %	16 %	43 %
Sales specialists	6 %	1 %	34 %	5 %	54 %
Food technologists	2 %	0 %	28 %	1 %	69 %
D - Electricity, gas, steam and air conditioning supply					
IT specialists	0 %	0 %	54 %	8 %	38 %
Manufacturing managers	0 %	0 %	20 %	0 %	80 %
Locksmiths	0 %	0 %	13 %	7 %	80 %
Electricians	0 %	0 %	59 %	0 %	41 %
Wiremen	0 %	0 %	46 %	8 %	46 %

Power engineers	0 %	0 %	53 %	0 %	47 %
Financiers /Economists	0 %	0 %	27 %	20 %	53 %
Engineers	3 %	0 %	38 %	3 %	55 %
Welders	7 %	0 %	7 %	0 %	86 %
Plumbers	0 %	0 %	14 %	7 %	79 %
Heat equipment specialists	0 %	0 %	8 %	0 %	92 %
E – Water supply, sewerage, waste management and remediation activities					
Engineering specialists	2 %	5 %	27 %	2 %	65 %
IT specialists	0 %	0 %	21 %	14 %	64 %
Chemistry laboratory assistants	0 %	3 %	26 %	0 %	71 %
Environment specialists	2 %	2 %	28 %	4 %	64 %
Locksmiths	2 %	0 %	27 %	7 %	63 %
Construction workers	0 %	3 %	22 %	11 %	64 %
Machine operators	2 %	2 %	23 %	11 %	62 %
Lawyers	0 %	0 %	30 %	6 %	64 %
Plumbers	0 %	0 %	25 %	13 %	62 %
Drivers	4 %	2 %	21 %	7 %	66 %
F - Construction					
Machine/equipment operator	8 %	0 %	40 %	5 %	47 %
Asphalt-pavers/ Railway track assemblers	9 %	1 %	29 %	3 %	57 %
Car drivers	6 %	0 %	31 %	5 %	59 %
Construction managers	7 %	1 %	44 %	7 %	41 %
Construction engineers	5 %	0 %	42 %	12 %	42 %
Grader operators, Excavator drivers	0 %	0 %	41 %	7 %	52 %
Low-qualified workers	5 %	2 %	34 %	21 %	38 %
Planners	6 %	0 %	29 %	8 %	57 %
Project managers	2 %	2 %	44 %	8 %	44 %
Dry construction specialists	2 %	1 %	49 %	10 %	38 %
G – Wholesale and retail trade; repair of motor vehicles and motorcycles					
IT specialists	1 %	0 %	35 %	0 %	64 %
Marketing specialists	0 %	0 %	11 %	0 %	89 %
Store managers	2 %	1 %	25 %	2 %	71 %
Shop assistants	4 %	0 %	44 %	2 %	49 %
Pharmacist	0 %	0 %	19 %	0 %	81 %
Accountant	0 %	0 %	0 %	0 %	100 %
Purchasing specialists	1 %	0 %	25 %	5 %	68 %
Pastry-cooks	0 %	0 %	33 %	0 %	67 %
Storage workers	3 %	0 %	29 %	4 %	64 %
Cooks	0 %	0 %	33 %	0 %	67 %
Salespeople-cashiers	2 %	1 %	33 %	3 %	61 %
Drivers	11 %	0 %	33 %	11 %	44 %
Middle managers	0 %	0 %	10 %	0 %	90 %
H – Transport and storage					
Car drivers (long-distance drivers)	0 %	0 %	26 %	11%	63%
C category managers	0 %	0 %	23 %	10%	67%
E category managers	0 %	0 %	24 %	9%	67%

IT specialists	0 %	0 %	36 %	13%	51%
Autoloaders	8 %	0 %	28 %	12%	52%
D category managers	0 %	0 %	33 %	14%	52%
Electricians	0 %	0 %	27 %	15%	58 %
Engineers	0 %	0 %	40 %	4%	56 %
Qualified taxi drivers	0 %	0 %	29 %	20%	51 %
Mechanics	0 %	0 %	25 %	14%	62 %
Storage workers	4 %	0 %	40 %	16%	40 %
I – Accommodation and food service activities					
Cleaner	0 %	0 %	0 %	0%	100 %
Barmen	0 %	0 %	38 %	0%	62 %
Kitchen workers	0 %	0 %	12 %	0%	88 %
Chambermaids	0 %	0 %	23 %	5%	73 %
Client service specialists	0 %	0 %	34 %	0%	66 %
Pastry-cooks	0 %	0 %	15 %	0%	85 %
Cooks	0 %	0 %	28 %	0%	72 %
Salespeople	0 %	0 %	25 %	0%	75 %
Sales specialists	0 %	0 %	22 %	0%	78 %
Waiters	0 %	0 %	32 %	0%	68 %
J – Information and communication activities					
Managers of data bases	0 %	0 %	19 %	7%	74 %
IT - telecommunication specialists	0 %	0 %	51 %	5%	44 %
IT specialists	3 %	0 %	39 %	3%	55 %
Telecommunication specialists	0 %	1 %	52 %	4%	42 %
Television and IP telephony engineers	1 %	0 %	18 %	5%	75 %
Client consultants	16 %	0 %	45 %	1%	38 %
Sales specialists	0 %	0 %	51 %	3%	47 %
Programmers	20 %	2 %	45 %	2%	31 %
Project managers	7 %	1 %	33 %	8%	51 %
Middle managers	0 %	1 %	12 %	21%	66 %
K – Financial and insurance activities					
IT specialists	0 %	3 %	13 %	23%	61 %
Analytics	0 %	3 %	16 %	3%	78 %
Pay specialists	0 %	0 %	100 %	0%	0 %
Auditors	0 %	6 %	14 %	14%	67 %
Brokers	0 %	0 %	0 %	0%	100 %
Dealers	0 %	0 %	0 %	0%	100 %
Client service specialists	2 %	7 %	27 %	17%	48 %
Mechanics	0 %	0 %	100 %	0%	0 %
Sales specialists	2 %	7 %	31 %	19%	41 %
Developers of product technologies	3 %	6 %	13 %	13%	66 %
Underwriters	0 %	8 %	13 %	18%	62 %
L – Real estate activities					
Investment specialists	1 %	0 %	15 %	0%	84 %
Estimators	0 %	0 %	7 %	0%	93 %
Cleaner	0 %	0 %	0 %	0%	100 %
Construction and plumbing	1 %	0 %	34 %	0%	65 %

specialists					
Electricians	0 %	0 %	50 %	0%	50 %
Client service specialists	0 %	0 %	29 %	0%	71 %
Marketing specialists	0 %	0 %	100 %	0%	0 %
House-managers	1 %	1 %	27 %	0%	70 %
Sales assistants	1 %	0 %	13 %	4%	82 %
Janitors	3 %	0 %	17 %	0%	81 %
M - Professional, scientific and technical activities					
Business analytics	5 %	0 %	45 %	0%	50 %
IT specialists	8 %	2 %	31 %	2%	56 %
Revision specialists	5 %	5 %	53 %	2%	35 %
Marketing specialists	0 %	0 %	23 %	3%	74 %
Biologists	0 %	0 %	32 %	14%	55 %
Financial consultants	2 %	2 %	63 %	0%	33 %
Accountants	2 %	4 %	39 %	9%	46 %
Engineers	4 %	2 %	47 %	8%	39 %
Lawyers	0 %	0 %	43 %	3%	55 %
Client consultants	0 %	2 %	27 %	4%	67 %
Project managers	2 %	3 %	31 %	2%	63 %
N - Administrative and support service activities					
IT specialists	100 %	0 %	0 %	0%	0 %
Janitor, Cleaner	7 %	0 %	18 %	7%	68 %
Security workers	8 %	1 %	23 %	13%	55 %
Electricians	2 %	1 %	26 %	6%	64 %
Purchasing specialists	5 %	1 %	24 %	3%	67 %
Mechanics	6 %	1 %	29 %	6%	59 %
Salespeople	8 %	1 %	23 %	5%	63 %
Plumbers	5 %	1 %	18 %	6%	70 %
Sales representatives	9 %	3 %	39 %	1%	47 %
Middle managers	2 %	3 %	28 %	10%	56 %
O – Public administration; compulsory social security					
IT specialists	0 %	1 %	42 %	2%	55 %
Financiers /Accountants/ Economists	0 %	0 %	10 %	18%	72 %
Lawyers	1 %	0 %	30 %	1%	68 %
Workers in the communal sector	0 %	0 %	20 %	10%	70 %
Culture workers	0 %	0 %	0 %	0%	100 %
Filing clerks	0 %	0 %	0 %	0%	100 %
Tax specialists	0 %	0 %	15 %	1%	84 %
Patrol policemen	11 %	0 %	39 %	0%	50 %
HR specialists	0 %	0 %	10 %	6%	84 %
Project managers	0 %	0 %	49 %	2%	49 %
P - Education					
IT specialists	0 %	0 %	27 %	2%	72 %
Chemistry teachers	1 %	0 %	3 %	16%	80 %
Math teacher	1 %	0 %	15 %	8%	76 %
Pre-school teachers	1 %	1 %	23 %	19%	56 %
Teachers' assistants	1 %	0 %	22 %	10%	68 %
Biology teachers	0 %	1 %	3 %	24%	72 %
Physics teacher	1 %	0 %	13 %	12%	73 %

Medical workers	0 %	0 %	1 %	1%	98 %
Medics	0 %	0 %	11 %	5%	84 %
Pre-school music teacher	0 %	0 %	9 %	6%	85 %
Q – Health and social care					
Social care worker	2 %	0 %	52 %	1%	45 %
Administration workers	3 %	0 %	15 %	11%	70 %
Educators	2 %	0 %	35 %	3%	59 %
Workers in a call centre	1 %	0 %	31 %	1%	66 %
Ergo therapy specialist	1 %	0 %	37 %	2%	60 %
Physiotherapist	1 %	0 %	36 %	2%	61 %
Nurses	8 %	0 %	41 %	4%	47 %
Rehabilitation specialists	8 %	1 %	63 %	1%	27 %
Social worker	1 %	0 %	50 %	0%	49 %
Social rehabilitator	2 %	0 %	48 %	1%	48 %
R - Arts, entertainment and recreation					
IT specialists	13 %	0 %	15 %	5%	67 %
Movie making engineers	10 %	0 %	10 %	5%	75 %
Property makers and wig makers	12 %	0 %	18 %	0%	71 %
Lighting specialists	4 %	0 %	8 %	0%	88 %
Engineers who build scenography	13 %	0 %	31 %	0%	56 %
Choir vocalists	18%	0 %	29 %	0%	53 %
Montage specialists	7 %	0 %	7 %	0%	87 %
Orchestra artists	18 %	0 %	24 %	6%	53 %
Sound operator	11 %	0 %	18 %	4%	68 %
Trainers	5 %	0 %	33 %	0%	62 %

Annex 2

The assessment of availability of specialists in the next 5-7 years			
Profession	Significant deficit	More time necessary to find specialists	Easy to find specialists
A - Agriculture, forestry and fishery			
Low qualified workers	10 %	37 %	53 %
Operators of timber technologies	8 %	83 %	9 %
Drivers of timber hauling trucks	4 %	75 %	21 %
Wood cutters	13 %	74 %	12 %
Car drivers	4 %	42 %	54 %
IT specialists	2 %	15 %	83 %
Managers	11 %	46 %	43 %
Accountant	6 %	20 %	74 %
Machine operators	19 %	51 %	30 %
Agronomist	24 %	40 %	36 %
B – Mining and quarrying			
Excavator drivers	25 %	38 %	38 %
Tractor drivers	33 %	47 %	20 %
Welders	29 %	36 %	36 %
Auxiliary worker	15 %	23 %	62 %
Car drivers	23 %	31 %	46 %
Middle managers	23 %	38 %	38 %
Locksmiths	18 %	27 %	55 %
Industrial machine operators	30 %	30 %	40 %
Machine operators	50 %	50 %	0 %
Dump truck drivers	0 %	0 %	100 %
Administrators	0 %	0 %	100 %
Bulldozer drivers	0 %	100 %	0 %
Accountant	0 %	100 %	0 %
C - Manufacturing			
Engineers	25 %	47 %	28 %
Sales specialists	12 %	24 %	64 %
Machine operators	42 %	39 %	19 %
Mechanics	32 %	47 %	22 %
Locksmiths	9 %	59 %	31 %
Food technologists	32 %	36 %	32 %
Welders	15 %	49 %	36 %
Manufacturing managers	19 %	47 %	34 %
IT specialists	13 %	40 %	48 %
Storage workers	5 %	17 %	79 %
D - Electricity, gas, steam and air conditioning supply			
Engineers	10 %	62 %	28 %
Power engineers	12 %	47 %	41 %
Locksmiths	13 %	31 %	56 %
Electricians	6 %	44 %	50 %
Plumbers	0 %	60 %	40 %
Financiers/Economists	7 %	27 %	67 %

Manufacturing managers	13 %	67 %	20 %
Welders	21 %	50 %	29 %
IT specialists	0 %	31 %	69 %
Wiremen	8 %	46 %	46 %
E - Water supply, sewerage, waste management and remediation activities			
Engineering specialists	17 %	61 %	22 %
IT specialists	5 %	44 %	52 %
Machine operators	3 %	59 %	38 %
Plumbers	11 %	48 %	41 %
Drivers	4 %	36 %	61 %
Environment specialists	6 %	40 %	54 %
Chemistry laboratory assistants	9 %	49 %	42 %
Locksmiths	16 %	36 %	48 %
Construction workers	2 %	46 %	51 %
Lawyers	3 %	13 %	85 %
F - Construction			
Project managers	27 %	42 %	31 %
Construction engineers	26 %	41 %	33 %
Car drivers	6 %	28 %	66 %
Planners	24 %	28 %	48 %
Low qualified workers	3 %	11 %	85 %
Construction managers	24 %	49 %	26 %
Asphalt-pavers/ Railway track assemblers	17 %	34 %	48 %
Machine/equipment operator	17 %	48 %	34 %
Grader operators, Excavator drivers	16 %	40 %	44 %
Dry construction specialists	23 %	45 %	32 %
G – Wholesale and retail trade; motor vehicles and motorcycles			
Salespeople-cashiers	3 %	35 %	62 %
Store managers	4 %	37 %	59 %
Storage workers	0 %	27 %	73 %
IT specialists	2 %	30 %	68 %
Shop assistants	6 %	56 %	39 %
Purchasing specialists	0 %	34 %	66 %
Pharmacist	5 %	33 %	62 %
Accountant	0 %	0 %	100 %
Middle managers	0 %	0 %	100 %
Drivers	0 %	78 %	22 %
Pastry-cooks	11 %	78 %	11 %
Marketing specialists	0 %	11 %	89 %
Cooks	11 %	78 %	11 %
H – Transport and storage			
Mechanics	3 %	46 %	51 %
D category managers	3 %	58 %	39 %
Electricians	0 %	43 %	57 %
Qualified taxi driver	0 %	42 %	58 %
Storage workers	4 %	27 %	69 %
C category managers	8 %	65 %	28 %
IT specialists	8 %	56 %	36 %

E category managers	6 %	81 %	13 %
Car drivers (long-distance drivers)	4 %	78 %	19 %
Engineers	15 %	69 %	15 %
I – Accommodation and food service activities			
Cooks	5 %	45 %	50 %
Waiters	0 %	27 %	73 %
Pastry-cooks	8 %	26 %	66 %
Client service specialists	0 %	28 %	72 %
Sales specialists	0 %	19 %	81 %
Chambermaids	0 %	9 %	91 %
Barmen	0 %	29 %	71 %
Kitchen workers	0 %	31 %	69 %
Salespeople	0 %	20 %	80 %
Cleaner	0 %	18 %	82 %
J – Information and communication activities			
Programmers	20 %	46 %	34 %
Project managers	22 %	54 %	24 %
IT specialists	9 %	40 %	52 %
Client consultants	13 %	40 %	46 %
Middle managers	41 %	42 %	16 %
IT - telecommunication specialists	4 %	44 %	52 %
Sales specialists	5 %	22 %	73 %
Telecommunication specialists	5 %	42 %	52 %
Systems architects	8 %	33 %	59 %
Television and IP telephony engineers	5 %	62 %	33 %
Data base managers	4 %	64 %	32 %
Client service specialists	3 %	11 %	86 %
K – Financial and insurance activities			
Client service specialists	13 %	40 %	47 %
Sales specialists	16 %	45 %	39 %
Underwriters	11 %	53 %	36 %
Auditors	12 %	52 %	36 %
Analytics	20 %	63 %	17 %
Developers of product technologies	24 %	52 %	24 %
IT specialists	22 %	48 %	30 %
Brokers	33 %	33 %	33 %
Mechanics	0 %	0 %	100 %
Pay specialists	100 %	0 %	0 %
Dealers	0 %	0 %	100 %
L – Real estate activities			
Janitors	4 %	22 %	75 %
Client service specialists	6 %	25 %	68 %
Investment specialists	4 %	20 %	76 %
Estimators	3 %	14 %	84 %
House-managers	4 %	38 %	58 %
Construction and plumbing specialists	15 %	41 %	44 %

Salespeople	3 %	18 %	80 %
Cleaner	0 %	0 %	100 %
Accountant	0 %	0 %	100 %
M - Professional, scientific and technical activities			
Project managers	8 %	25 %	67 %
Accountant	2 %	88 %	11 %
IT specialists	13 %	31 %	56 %
Lawyers	1 %	75 %	23 %
Client consultants	2 %	17 %	81 %
Engineers	16 %	56 %	28 %
Revision specialists	2 %	86 %	12 %
Financial consultants	12 %	86 %	2 %
Marketing specialists	5 %	11 %	84 %
Business analytics	32 %	59 %	9 %
N - Administrative and support service activities			
Sales representatives	6 %	41 %	53 %
Salespeople	5 %	29 %	67 %
Mechanics	23 %	44 %	33 %
Janitor, Cleaner	2 %	22 %	76 %
Plumbers	15 %	44 %	41 %
Security workers	6 %	28 %	67 %
Middle managers	17 %	57 %	25 %
Electricians	18 %	40 %	41 %
Purchasing specialists	11 %	45 %	44 %
IT specialists	100 %	0 %	0 %
O – Public administration and defence; compulsory social security			
Financiers /Accountants/ Economists	4 %	38 %	58 %
Project managers	4 %	57 %	39 %
HR specialists	2 %	41 %	57 %
Lawyers	2 %	43 %	55 %
Tax specialists	0 %	43 %	57 %
IT specialists	2 %	56 %	41 %
Patrol policemen	0 %	40 %	60 %
Workers of the communal sector	30 %	40 %	30 %
Land specialists	0 %	40 %	60 %
Culture workers	0 %	40 %	60 %
Filing clerks	0 %	40 %	60 %
P - Education			
IT specialists	5 %	71 %	24 %
Physics teacher	26 %	57 %	17 %
Math teacher	23 %	54 %	23 %
Chemistry teachers	31 %	60 %	9 %
Biology teachers	8 %	58 %	33 %
Medical workers	0 %	14 %	86 %
Pre-school teachers	14 %	41 %	45 %
Pre-school music teacher	1 %	56 %	42 %
Teacher's assistants	2 %	23 %	75 %
Medics	0 %	38 %	62 %
Q – Health and social care			

Ergo therapy specialist	18 %	73 %	9 %
Social rehabilitator	19 %	76 %	5 %
Social worker	7 %	50 %	43 %
Social care worker	9 %	52 %	39 %
Physiotherapist	4 %	44 %	52 %
Nurses	22 %	33 %	45 %
Administration workers	9 %	18 %	73 %
Rehabilitation specialists	24 %	37 %	39 %
Workers in a call centre	7 %	18 %	75 %
Doctor's assistants	16 %	35 %	49 %
R - Arts, entertainment and recreation			
IT specialists	2 %	22 %	76 %
Sound operators	0 %	32 %	68 %
Lighting specialists	0 %	39 %	61 %
Trainers	0 %	41 %	59 %
Movie making engineers	0 %	18 %	82 %
Orchestra artists	0 %	19 %	81 %
Property makers and wig makers	0 %	25 %	75 %
Choir vocalists	0 %	13 %	88 %
Engineers, who build scenography	6 %	25 %	69 %
Montage specialists	0 %	29 %	71 %